# PHYSICIAN PAYMENT REVIEW COMMISSION

## PRE- AND POSTOPERATIVE VISITS ASSOCIATED WITH SURGICAL GLOBAL SERVICES

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No. 91-2

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# PREFACE

This report presents the methods and results of the Commission's project to develop pre- and postoperative visit patterns for surgical global services. It is presented to the Health Care Financing Administration (HCFA) as part of the Commission's comments on the Notice of Proposed Rulemaking (NPRM) issued on June 5, 1991.

The Commission has developed visit patterns for 160 surgical global operations accounting for 62 percent of Medicare's expenditures on surgical global services. Furthermore, preliminary analysis of relationships of pre/post work to total work show excellent potential for extending the 160 visit patterns to all surgical global operations. The Commission recommends that its visit patterns form the basis for developing total relative work values (RWVs) for surgical global services after January 1992.

The Commission developed its visit patterns using data from 13 surgical specialty societies; seven sources of objective data, including Medicare claims; and the results from a national survey of over 1,700 practicing surgeons. Because multiple sources, rather than a single source such as small panels of physicians, were used to develop the visit patterns, the Commission has confidence that they provide an excellent basis for surgical RWVs.

This study was conducted for the Commission by Abt Associates Inc. of Cambridge, Massachusetts. Maureen Molloy Morrow and Roz Lasker, M.D. of the Commission staff, and Monica Noether, Ph.D. of Abt Associates are principally responsible for the analysis in this report. Among the many people who contributed to the completion of this study, the following were particularly helpful: Kenneth Bash, Annice Cody, Doran Dunaway, Steve Hayes, Greg Lieberknecht, and David Sheehy. Special thanks also go to all of the participating surgical specialty societies and their staffs.

# CHAPTER 1

# INTRODUCTION

A cornerstone of the comprehensive reform of physician payment, enacted by the Congress in the Omnibus Budget Reconciliation Act of 1989, is the Medicare Fee Schedule. It is designed to replace the current charge-based method of paying physicians with a resource-based fee schedule that more accurately reflects the work and practice costs involved in providing services. The Medicare Fee Schedule will be implemented in phases beginning in January 1992.

The Physician Payment Review Commission is charged with advising the Congress on this major reform effort. In conducting its policy review and analysis, the Commission concluded that successful implementation of the Medicare Fee Schedule requires the development of a standardized definition for surgical global services (PPRC 1988). These are packages of clinically related services that are coded as one unit and paid using one fee. Surgical services have traditionally been paid on the basis of global fees. Under the current Medicare system, however, the specific component services included in each global fee are not well defined.

This report presents the results of research conducted by the Commission and its contractor, Abt Associates Inc., to develop pre- and postoperative visit patterns associated with surgical operations. The Commission recommends that these visit patterns be used as the basis for payment for surgical global policy under the Medicare Fee Schedule.

The Commission's visit patterns were developed using data from surgical specialty societies, several objective sources, and a Commission-sponsored national survey of practicing surgeons. Objective sources included claims files, hospital and physician surveys, and data from a health maintenance organization and a large multispecialty group practice.

## A Uniform Surgical Global Policy

Variation across Medicare carriers, not only in the allowed charges for surgeries but also in the component services included in surgical global fees, is well documented (PPRC 1989a). Theoretically, the current customary, prevailing, and reasonable system of payment can partially accommodate variation in surgical global service policies. But under the national Medicare Fee Schedule, variable global policies would result in serious inequities. Beginning in 1992, only one relative value will be assigned to each surgical code. This value would be clearly inequitable if it applied to different packages of component services entailing different resource costs in different parts of the country.

A surgical global service policy that can be applied uniformly by Medicare carriers to all operations is endorsed by the Physician Payment Review Commission (PPRC 1989b) and the Health Care Financing Administration (Federal Register 1991). To this end, in 1988 the Commission convened a consensus panel consisting of surgeons and officials representing Medicare carriers. This panel was charged with developing a policy that would meet the needs of surgeons, beneficiaries, and carriers.

The Commission's policy, based on the unanimous agreement of the panel, specifies which services are to be included in the global fee and which are to be paid separately (Appendix A). Payment under this policy includes:

- all preoperative hospital visits provided by the principal surgeon on the day before and the day of surgery, excluding the surgical consultation;
- all intraoperative services performed by the principal surgeon that are a usual and necessary part of the primary operation;
- minor perioperative procedures commonly performed in association with most operations (such as dressing changes and removal of sutures);
- all institutional and outpatient visits provided by the principal surgeon during the 90 days following the primary operation, unless the visit is for a problem unrelated to the diagnosis for which surgery is performed; postoperative evaluation and management services related to complications of surgery are included.

The Commission's policy explicitly identifies services that should be excluded from the surgical fee. The following services would be billed and paid separately:

- the surgical consultation provided by the principal surgeon to evaluate the surgical problem,
- nonoperative technical procedures not usually performed at the time of surgery, and
- unusual services related to the primary operation, concurrent operations for another diagnosis, and reoperations for complications.

Concurrent operations, reoperations for complications, and staged operations (operations that are planned to be completed in more than one stage) would be reimbursed at rates less than the full assigned global fee to reflect the savings in resource costs achieved by providing concurrent intraoperative and postoperative care.

## Development of Total Relative Work Values for Surgical Global Services

Once a final decision is made regarding the components of surgical global services, total relative work values (RWVs) can be assigned to each operation. The following is a simple illustration of the calculation of total RWVs for surgical global services:

Surgical Global RWV = preoperative RWV + intraservice RWV + postoperative RWV

Calibration of pre- and postoperative RWVs requires data describing the number, site, and duration of all pre- and postoperative visits provided by the principal surgeon to the typical patient within the global service timeframe. When the Commission developed its policy in 1988, it recognized that additional data would be necessary to develop RWVs for surgical global services. This is because the global service definition used in Phase I of the Hsiao study did not include postoperative office visits (Hsiao and others 1988).[1] The Commission developed a workplan for collecting data on all pre- and postoperative visits that conformed with its surgical global policy and, in January 1989, commenced this project.

## The Commission's Surgical Global Service Project

The Commission followed a four-stage process to assign pre- and postoperative visit patterns to a subset of surgical global service codes. The steps were:

- collection and processing of pre- and postoperative visit patterns from 14 surgical specialty societies for all operations in their respective fields,
- collection and analysis of data from multiple objective sources that reflect current practice in the provision of pre- and postoperative care to patients undergoing each operation,
- development of preliminary visit patterns for a sample of operations using specialty society and objective data, and
- conducting a national survey requesting practicing surgeons requesting respondents to review the preliminary visit patterns for reasonableness and make changes where necessary.

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[1] Hsiao and his colleagues at Harvard University are developing a resource-based relative value scale of physician work. The study is being conducted in three phases. Phases I and II are complete and Phase III is in progress. In Phase II, Hsiao revised his methodology to obtain information about both office and hospital postoperative visits included in the Commission's policy.

To make the data compatible with the intraservice data from the Hsiao study, the visit patterns resulting from the Commission's project are intended to reflect care provided by the principal surgeon to the typical patient (average complexity) undergoing each operation. Specialty society and objective sources of data therefore consider patients of all ages, not just Medicare patients.

This report presents the methods and results of the Commission's surgical global service project that entailed analysis of data from 13 specialty societies, seven objective sources including claims data, and a national survey of practicing surgeons. Chapter 2 discusses all sources of data the Commission used to develop preliminary visit patterns. Comparison of specialty society data and summary statistics from the objective data are reported in Chapter 3, together with decision rules used to develop preliminary visit patterns. Chapter 4 reports the results of the Commission's national survey of practicing surgeons and explains how these results were adopted as final visit patterns. Finally, Chapter 5 presents the Commission's analysis of its visit patterns according to components of pre- and postoperative care. Most importantly, this chapter discusses how these visit patterns can be used to assign RWVs to surgical global services. In addition, Chapter 5 compares pre- and postoperative time data from Phase II of the Hsiao study with the Commission's data and data from an Abt Associates survey of cardiothoracic and vascular surgery (Noether and others 1990).

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# CHAPTER 2

# PRE- AND POSTOPERATIVE VISIT DATA SOURCES

During the consensus process for the development of a uniform surgical global policy, panel members recommended that specialty societies play a role in identifying the specific components (pre- and postoperative visits) included in each surgical global service. In January 1989, surgical specialty societies were asked to identify, for each operation in their respective fields, the number, site, and duration of pre- and postoperative visits provided to the typical patient by the principal surgeon within the 90-day postoperative time period. Fourteen specialty societies participated in this effort, providing visit patterns for 5,912 surgical operations (Table 2-1). This participation marked an important first step in the development of the Commission's surgical visit patterns.

To complement the specialty society data, the Commission also obtained information about perioperative visits from several objective sources, including surveys and claims files. Data from many of these sources were available for immediate application, while some sources required further development according to project specifications.

The Commission's analysis of data from specialty societies and objective sources focused on 459 *Current Procedural Terminology* (CPT) codes that represent a broad range of surgical global services and that account for a large percentage of Medicare surgical expenditures. This chapter describes the data sets and discusses how they were refined to enhance their usefulness in this project.

## SPECIALTY SOCIETY DATA

The Commission invited specialty societies to participate in this project through an introductory letter that explained the requirements of surgical global payment under the Medicare Fee Schedule and the recommendations of the consensus panel (Appendix B). Specialty societies were provided with instructions and worksheets for data entry (Appendix C). The Commission staff met with some societies at their request to discuss the project's goals and answer questions concerning data collection and uses.

Visit patterns provided by the specialty societies represent a rich and unique database. No other single database contains all of the variables reported by the specialty societies--estimates of the number, site, and duration of pre- and postoperative visits provided by the principal surgeon to the typical patient within the 90-day global period. For some elements of the visit pattern, such as number of preoperative visits, the specialty society data are the only available source.

One potential shortcoming of the specialty society data is that various approaches (including the use of consensus panels, committees from within society leadership, and surveys of a sample of members) were used to comply with the Commission's request (Appendix D). In some cases, relatively few practicing surgeons were involved. The Commission also recognizes that specialty society data may reflect ideal practice, rather than actual practice.

**Table 2-1. Participating Specialty Societies**

| |
|---|
| American Academy of Dermatology |
| American Academy of Ophthalmology |
| American Academy of Otolaryngology - Head and Neck Surgery |
| American Academy of Orthopaedic Surgeons |
| American Association of Neurological Surgeons |
| American Association of Oral and Maxillofacial Surgeons |
| American College of Obstetricians and Gynecologists |
| American College of Surgeons |
| American Podiatric Medical Association |
| American Society of Plastic and Reconstructive Surgeons |
| American Society of Transplant Surgery |
| American Urological Association |
| Society of Thoracic Surgeons |
| Society for Vascular Surgery |

## Information Submitted to the Commission

Specialty societies were asked to provide the following information for each surgical CPT code within their respective fields:

- the number and duration of all preoperative hospital visits typically provided by the principal surgeon on the day before and day of surgery, excluding the surgical consultation;

- the number, site, and duration of all institutional and office visits typically provided during the 90 days following surgery by the principal surgeon; and

- the percent of time the operation is performed in an inpatient setting.

The Commission instructed specialty societies to provide visit patterns for the site of service where the operation is most frequently performed (inpatient or outpatient). For operations that are frequently performed in both inpatient and outpatient settings, visit patterns specific to each setting were often provided. Finally, specialty societies were directed to identify the visits that would be provided to the typical patient of all ages, undergoing each operation, not just those provided to Medicare beneficiaries.

Most societies submitted one worksheet for each operation that surgeons in their field perform. However, some specialties grouped operations into families of related operations, assigning the same visit pattern to each operation in the family.

### Preparation of Data for Analysis

Upon receipt of data, several editing and cleaning routines were followed. Data were manually checked before coding and entry. When ranges of data were provided (such as five to 10 minutes), the midpoint of the range was entered. Some missing information was filled in. For example, when the site was not circled but the previous visit had been identified as an office visit, it was assumed that subsequent visits also occurred in the office. In addition, when a hospital visit was followed several days later by a visit where the site was not specified, and there were no intervening visits, the subsequent visit was assumed to have occurred in the office. This process was followed for specialties that otherwise provided very clear data. All ambiguities were clarified through communication with specialty societies.

Although specialty societies were asked to indicate whether each visit pattern applied to an outpatient or inpatient setting, some inconsistencies were found in the data sets. The Commission therefore set rules for determining whether the data were for inpatient or outpatient operations. An outpatient procedure was defined as any operation not requiring an overnight hospital stay. In most cases, the specialty society stated the setting explicitly; in others it was inferred from other data. For example, if all postoperative visits after the day of surgery occurred in an outpatient setting, the surgical setting was defined as outpatient. Conversely, if postoperative visits after the day of surgery were identified as hospital visits, the setting was defined as inpatient. When it was not completely clear, specialty societies were called to clarify the setting.

All data were reviewed by a medical records expert to verify that the CPT code and description on each data entry form matched. The consultant also noted when CPT modifiers were used, and when operations currently considered nonglobal, or "starred" by

CPT, were included.[1] Most of the problems the consultant identified were errors in the CPT code, or mismatched codes and descriptors. These were resolved through communication with the specialty society.

Survey worksheets were sent to Abt Associates' subcontractor, Advanced Automation, for entry. All entries were 100 percent key-verified. The computerized data files were checked for out-of-range values, duplicate entries, and consistency.

## OBJECTIVE DATA

Several types of objective data were used to develop surgical visit patterns, including data from Medicare claims files, a large group practice, a large health maintenance organization (HMO), physician surveys, and hospital surveys. Data were available for most but not all variables included in a surgical visit pattern: hospital length of stay (from which the number of hospital visits was derived), number of office visits within 90 days of surgery, and average duration of hospital and office visits. However, these data were not always available for all CPT codes. In addition, no source of data was available describing the number and duration of preoperative visits, which operations are associated with recovery room visits, or the duration of recovery room visits.

Overall, the objective sources of data provide valuable information concerning actual practice covering a broad range of patients, settings, and practice types. However, no single objective data source was ideal for reflecting a cross section of practice patterns and patients. For example, some sources describe a subset of the population such as Medicare claims files that reflect the care provided to patients 65 and over. Limitations, such as those created by global billing, also had to be overcome.

## SELECTION OF CPT CODES FOR ANALYSIS

A sample of 459 CPT codes was selected for analysis. This sample represented a broad range of operations that are currently paid on the basis of global fees and are performed by different surgical specialties. The criteria used to select codes for objective data analysis included:

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[1] CPT defines starred procedures (indicated with a * in the CPT book) as those for which "the usual package concept for surgical services cannot be applied".

- volume of service performed, both Medicare and non-Medicare;
- Medicare expenditures;
- surgical setting (inpatient or outpatient);
- specialty representation;
- inclusion in Phase I of the Hsiao study;
- representation of each family of codes designated by specialty societies; and
- designation as global operations rather than nonglobal procedures by specialty societies.

Since some operations are commonly performed in both inpatient and outpatient settings and some are performed by more than one specialty, the sample represented more than 1,000 code/setting/specialty combinations. Below is a more detailed description of each criterion used to select the sample of codes.

### Volume

Codes were selected to reflect the operations performed most frequently on a cross section of age groups. Data from the Beneficiary File of the Part B Medicare Annual Data Files (BMAD) and the National Hospital Discharge Survey (NHDS) were used to identify operations performed most commonly on the elderly and younger populations respectively. Lists were compiled of the Medicare frequencies for all operations using the 1987 BMAD I (procedure) file. Both aggregate (across all specialties) and specialty-specific lists defined at the CPT-4 level were examined. The latter relied on Medicare specialty designations that do not include transplant and vascular surgery.

The BMAD file was used to develop an initial sample of high volume codes since it is more precise than NHDS (NHDS is defined using *International Classification of Diseases 9th Revision* [ICD-9] codes rather than CPT codes and contains no specialty information). Next, NHDS data were consulted to identify operations frequently performed on the under-65 population, but infrequently on the elderly. Since the NHDS data provide frequency information by age categories, it was possible to calculate for each ICD-9-defined operation the proportion of surgeries performed on patients under 65. Operations with a relatively high total frequency that are performed proportionally more often on patients under 65 were added to the sample.

### Expenditures

BMAD data were used to ensure that a high proportion of Medicare surgical dollars, in the aggregate and by specialty, were represented by the sample of codes (Table 2-2). The 459 codes accounted for 70 percent of all surgical dollars, while the sample accounted for 85 percent of dollars spent on surgical global operations.

Percentages were highest for those specialties in which a few costly operations represent the majority of the specialty's Medicare practice. Ophthalmology is an extreme example. A minimum of 10 high expenditure codes were selected for each specialty.[2] Because there are no reliable expenditure data for all ages of the population, it was not possible to compute similar percentages for the population as a whole.

### Setting

Codes were selected to represent operations performed in both inpatient and ambulatory settings. Several sources of information on the most common setting were consulted. First, as described above, the specialty societies provided estimates of how frequently each operation is performed on an inpatient basis. For operations performed by more than one specialty, the reported frequencies sometimes varied perhaps reflecting variation in the types of cases typically seen by different specialties. Second, BMAD data were consulted to determine the proportion of dollars spent by the Medicare program on each surgical CPT code in each setting. Finally, the list of Medicare approved procedures for performance in an ambulatory surgery center (ASC) was used to determine procedures that are paid on an outpatient basis.

**Table 2-2. Percentage of Medicare Surgical Dollars Accounted for by Sample Codes**

| Specialty | Percent of Total Surgical Dollars (Global and Non-Global Services) | Percent of Global Service Surgical Dollars |
|---|---|---|
| **All Specialties** | **70%** | **85%** |
| Dermatology | 54 | 95 |
| General Surgery | 48 | 77 |
| Neurosurgery | 56 | 63 |
| Obstetrics-Gynecology | 70 | 85 |
| Ophthalmology | 95 | 96 |
| Oral and Maxillofacial Surgery | 31 | 50 |
| Orthopaedic Surgery | 75 | 80 |
| Otolaryngology | 44 | 46 |
| Plastic Surgery | 64 | 69 |
| Podiatry | 33 | 85 |
| Thoracic Surgery | 64 | 85 |
| Urology | 63 | 85 |

Source: 1987 BMAD.

Note: Reflects BMAD specialty designation.

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[2] Transplant surgery is the one exception to this rule; there are only a small number of frequently performed transplant procedures.

Of the 459 codes in the sample, 156 are performed on an inpatient basis at least 80 percent of the time according to all responding societies; 101 are performed on an outpatient basis at least 80 percent of the time; and 202 are either commonly performed in both settings, had different settings specified by different societies, or had no setting specified by the specialty societies. In addition, 47 codes are on the list of codes approved by Medicare for performance in an ASC. When societies provided a visit pattern for both settings, both were compared with available objective data.

### Specialty Representation

Codes were selected to represent all 14 surgical specialties that submitted data to the Commission (Table 2-3). Some specialties had fewer codes selected because a small number of codes account for most of the volume and expenditures attributed to the specialty. Esoteric operations are not well described by objective data sources and, therefore, were not selected for the sample.

**Table 2-3. Specialty Representation by Sample Codes**

| Specialty | Number of Codes in Sample | Number of Codes Submitted by Society | Percent in Sample |
|---|---|---|---|
| Dermatology | 93 | 170 | 55% |
| General Surgery | 133 | 635 | 21 |
| Neurosurgery | 19 | 275 | 7 |
| Obstetrics-Gynecology | 38 | 138 | 28 |
| Ophthalmology | 45 | 238 | 19 |
| Oral and Maxillofacial Surgery | 59 | 230 | 26 |
| Orthopaedic Surgery | 66 | 1289 | 5 |
| Otolaryngology | 156 | 780 | 20 |
| Plastic Surgery | 140 | 1116 | 13 |
| Podiatry | 21 | 210 | 10 |
| Thoracic Surgery | 28 | 309 | 9 |
| Transplant Surgery | 8 | 16 | 50 |
| Urology | 29 | 279 | 10 |
| Vascular Surgery | 18 | 227 | 8 |

### Hsiao Study Codes

To facilitate comparison with data from the Hsiao study, 41 of the 49 surgical codes surveyed in Phase I of the Hsiao study were included in the sample. Eight codes were not used because they either had been deleted from CPT or described low volume services. The list of codes surveyed in Phase II of the Hsiao study was unavailable when codes were selected and thus did not influence code selection. Nonetheless, the final sample of codes includes 125 that were surveyed in either Phases I or II of the Hsiao study.

### Family Representation

Five specialty societies grouped CPT codes into families of operations with similar or identical visit patterns. To maximize the potential for extrapolation to codes not included in the sample, representatives from all families of codes with more than three members were included, provided that one of the codes in the family had a Medicare frequency of at least 1,000. The sample of codes represents 57 families of operations.

### Global Operations

All but 45 codes included in the sample describe surgical global services as defined by CPT. Although these 45 codes are starred in CPT, they were included because specialty societies indicated that they are paid (in some carrier areas) on the basis of global fees. Appendix E lists the 45 starred codes included in the sample.

## SOURCES OF OBJECTIVE DATA

Data sources were available for the following dimensions of surgical visit patterns:

- number postoperative hospital visits,
- number of postoperative office visits, and
- duration of postoperative hospital and office visits.

Seven data sources were used to develop preliminary visit patterns. For each dimension, data were drawn from sources having at least 10 observations per CPT code. For most codes, sample size exceeded 30 (Table 2-4). Only 17 percent of the codes had between 10 (the minimum) and 30 observations, for instance, for the number of office visits dimension from the Medicare data. Because the number of observations varied across sources of data for each code and for each dimension, the national survey of physicians assumed great importance in the Commission's process to assign visit patterns.

The following sections describe each source of data and how it was used to estimate dimensions of the visit patterns. Advantages and drawbacks of each source are also discussed as these relate to the use of the data in this project.

**Table 2-4. Codes with Sample Size between 10 and 30**

| Length of Stay Sources | | | Office Visit Sources | | |
|---|---|---|---|---|---|
| | Number | Percent of Total | | Number | Percent of Total |
| CPHA | 0 | 0% | Carle | 19 | 4% |
| Kaiser | 59 | 13 | Kaiser | 67 | 15 |
| MEDPAR | 5 | 1 | BMAD | 80 | 17 |
| NHDS | 60 | 13 | | | |

## Medicare Data

Medicare data were used to estimate the length of stay (from which number of hospital visits was derived) and the number of postoperative office visits. Two sources of Medicare claims data were used. First, a 20 percent sample was selected from the 1987 Medicare Provider Analysis and Review (MEDPAR) data file. All inpatient claims for the sample were included in the MEDPAR file. Data elements included dates of admission and discharge from the hospital, ICD-9 codes for diagnoses and procedures, and information on charges and payments. Second, a 5 percent sample from BMAD IV (the beneficiary file) containing all Part B claims and consisting primarily of physician services was used. This file contains the physician services (identified by CPT codes) provided to patients and the dates of these services.

To count hospital days and associated outpatient visits provided within 90 days of surgery, it was necessary to link the MEDPAR and BMAD files.[3] Episodes of care having clearly established 90-day postoperative periods were created for each CPT code in the sample. This was accomplished using Medicare identification numbers (also known as Health Insurance Claim [HIC] numbers).

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[3] See Appendix F for a description of the linked file.

Because MEDPAR is reported using ICD-9 codes, a crosswalk procedure was followed to determine which ICD-9 codes corresponded to the CPT codes in the sample. Software developed by the Commission on Professional Hospital Activities (CPHA) was used for this purpose. Since the software can crosswalk in either direction (CPT to ICD and ICD to CPT), the implications of the crosswalk were studied. For several codes, there was no one-to-one match between ICD and CPT.[4]

Observations were selected from the linked file for all ICD-9 codes (and combinations thereof) that corresponded to the CPT codes in the sample.[5] The number of observations per ICD-9 code ranged from 22 to 500 (the maximum number sampled).

Advantages to using the Medicare data include its large sample size and its representativeness of the national Medicare population. A drawback to the database is that it reflects patterns of surgical global billing. This presented many challenges that had to be overcome to make the data useful. As described in Chapter 1, surgical services have historically been paid on the basis of global fees that encompass some pre- and postoperative care. The policies governing these fees vary across Medicare carrier areas according to the number of days of postoperative care or type of visit (hospital or office) that are included in the fee. Virtually all carriers include hospital visits in the fees. Therefore, hospital visits were not counted. Results of the analysis of office visits are reported below.

### Kaiser Permanente

Data from Kaiser Permanente were used to estimate length of stay and number of office visits provided within 90 days of surgery. Kaiser Permanente is the largest staff model HMO in the United States. Kaiser's physicians are salaried, and its enrollees receive care under a capitated system. The Northern California division of Kaiser Permanente provided the Commission with data drawn from 100 percent of its 1988 medical records (2.2 million records).

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[4] Some examples of idiosyncrasies in the crosswalk procedure were that a single CPT code mapped to two ICD-9 codes. In these cases, the two ICD-9 codes together define the single CPT code. For example, cataract extraction with lens insertion (CPT 66984) maps to two ICD-9 codes: cataract removal (13.59) and lens insertion (13.71). In other cases, a single ICD-9 code mapped to multiple CPT codes. Here, the ICD-9 coding system represents a broader categorization than CPT. For example, the ICD-9 code for coronary artery bypass of three coronary arteries (36.13) maps to four CPT codes each representing different types of coronary bypass procedures (33512, 33528, 33560, 33575). To crosswalk from ICD-9 to CPT, all codes were first run through the program. All resulting CPT codes were manually checked for clinical reasonableness. In addition, where multiple CPT codes were mapped to a single ICD-9 code, the highest volume CPT code was selected for the sample unless one or more specialty societies reported that the visit patterns for the different CPT codes varied by more than two visits. In this situation, which occurred twice, two CPT codes were selected to match the single ICD-9 code. In general, CPT codes provide more narrow definitions of operations than do ICD-9 codes. As a result, the 459 CPT sample codes mapped to 314 ICD-9 codes.

[5] In cases where a single CPT code is defined by two ICD codes, only observations that contained both ICD codes were used.

All medical records in the Kaiser system for 1988 were scanned to extract occurrences of inpatient and ambulatory surgeries included in the sample. This file was linked to Kaiser's outpatient database in order to identify all visits, distinguished by practitioner type, that were provided within 90 days of surgery. Crosswalk from ICD-9 to CPT was performed using the same methods that were applied to the Medicare data.

This source of data was valuable because it was not based on billing or claims data. Visits that might not appear in claims files because they are included in global fees are on record in the Kaiser file. Other advantages associated with this file are its 100 percent sample of patients and incorporation of patients of all ages. Drawbacks are that the data represent HMO enrollees in only one region of the nation. These factors could bias the data to reflect regional or other practice preferences.

### Commission on Professional and Hospital Activities

The Commission on Professional and Hospital Actvities (CPHA) data were used solely to estimate length of stay. CPHA is a large, nationwide abstracting service that aggregates medical record data from its member hospitals to generate several data sets. For this project, length of stay data from 1988 were selected for the sample of CPT codes. Crosswalk from ICD-9 to CPT was first necessary.

Approximately 20 percent of all short-stay general hospitals furnish data to CPHA. This rich database provided an adequate sample size for all codes in the sample. However, because of self-selection, CPHA hospitals may not be representative of all hospitals. In 1988, CPHA included disproportionately fewer hospitals in the Southern region of the United States (23 percent versus 38 percent) and more hospitals from the North Central region of the United States (35 percent versus 29 percent) and West (28 percent versus 19 percent) compared with the distribution of all short-stay hospitals nationwide. In addition, CPHA includes proportionally more nonprofit hospitals and fewer proprietary and public hospitals than the nation as a whole.

A second drawback to the CPHA data is that it is aggregated into groups of related ICD-9 codes. The average length of stay associated with a small group of closely related ICD-9 codes was applied to matched CPT codes.

### National Hospital Discharge Survey

Data from the 1987 NHDS were used to estimate length of stay. This hospital survey is administered continuously by the National Center for Health Statistics. Data are drawn from medical record abstracts of patients discharged from short-stay, nonfederal hospitals having at least six beds. A two-stage random sample, first of the relevant hospital universe stratified by size and region, and then of a sample of medical records for patients who were discharged from the sampled hospitals, is used. The resulting file contains 181,000 records from 558 hospitals. Each record provides patient demographics, dates of admission and discharge, discharge status, diagnoses, and ICD-9 defined surgeries performed.

This survey's two-stage random sample ensured that the hospitals and observations from the hospitals were representative of the nation for all age groups. Unfortunately, there were few observations for some CPT codes, necessitating the use of pooled NHDS data from both 1986 and 1987.[6] Pooled data were not used for all codes because there appeared to be significant though unsystematic differences for some operations across the two years.

### Carle Clinic

Computerized patient encounter data from the Carle Clinic, a large multispecialty group practice located in Urbana, Illinois, were used to estimate the number of postoperative office visits associated with operations in the sample. Of Carle's 165,000 patients, 80 percent come from 10 counties surrounding Champaign-Urbana. The clinic serves private-pay, HMO, Medicaid, and Medicare patients. Visits provided within 90 days of surgery by any practitioner (physician or nonphysician) in the principal surgeon's department were counted in the analysis.

A major advantage of this database is that it is service-based. Unlike claims data, it furnishes information on all services provided, rather than on services billed. Drawbacks associated with the Carle data are small numbers of observations for several codes in the sample and the fact that the data represent patients in one geographic area.

### National Ambulatory Medical Care Survey

Data from the National Ambulatory Medical Care Survey (NAMCS) were used to develop estimates of postoperative office visit durations by specialty. This survey, sponsored by the National Center for Health Statistics, provides data about physician-patient encounters in ambulatory settings. The data used in this project were collected from March 1985 through February 1986.

As with the NHDS, a two-stage sampling strategy was used. The first stage identified a national sample of nonfederal, office-based medical doctors (MDs) and doctors of osteopathy (DOs). For the second stage, each participating physician was asked to record data on a log diary for a random sample of about 30 office visits. The unit of observation was a single patient encounter.

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[6] NHDS data from 1987 and 1986 data were pooled if there were fewer than 30 observations in 1987. This was true for 171 codes.

This database provided encounter-specific information on the duration of office visits. Moreover, these data specifically reflect the duration of postoperative office visits according to surgical specialty. Participants record information concerning duration of the visit (expressed as encounter time or face-to-face time) and the reason for the visit, as well as patient demographics and therapies prescribed. The "reason for visit" codes permitted identification of 3,685 postoperative visits.

NAMCS data are reported according to 40 specialties and subspecialties. For this project, data from some subspecialties were combined to provide a larger sample of visits. For example, data from obstetrics, gynecology, and obstetrics and gynecology were all combined to form the benchmark for obstetrics and gynecology. Ultimately, duration estimates for 10 specialties were developed: dermatology, general surgery, neurosurgery, obstetrics and gynecology, ophthalmology, orthopaedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology. The number of observations for each specialty ranged from 87 to 1,226.

Disadvantages of this database are its small sample size and the absence of some subspecialties from the pool of participants. The Commission used the NAMCS data as benchmarks against which the specialty societies' durations could be compared and adjusted.

### American Medical Association's Socioeconomic Monitoring System

Pooled data from the American Medical Association's (AMA) Socioeconomic Monitoring System (SMS) for 1985 to 1989 were used to estimate the duration of hospital visits by specialty. The SMS data are developed from a semiannual telephone survey of a stratified sample of 4,000 office and hospital-based physicians (excluding federal employees and residents). The survey measures practice indicators such as hours worked per week overall and in different settings, numbers of visits during the most recent complete week of practice, practice expenses (overall and in different categories), fees for selected activities, and net income from medical practice.

For this project, measures of hospital visit duration were developed from physicians' responses concerning total number of hours spent and visit provided per week on hospital rounds. Data from five years were pooled since substantial differences were not apparent across these years. Data from 10 specialties were used: general surgery, neurosurgery, ophthalmology, otolaryngology, plastic surgery, thoracic surgery, urology, orthopaedic surgery, obstetrics and gynecology, and dermatology. The number of physicians surveyed per specialty ranged from 87 to 1,138.

The advantages of this survey are that it permitted the development of specialty specific estimates of hospital visit duration. The estimates are, however, somewhat unrefined because they were derived indirectly. Accurate responses to the telephone survey rely upon the respondents' recall and ability to estimate time. Because of these drawbacks, the Commission used these data as benchmarks against which specialty societies' durations could be compared.

## ANALYSIS OF OBJECTIVE DATA

The objective data were used to create summary statistics for length of stay, number and duration of hospital visits, and number and duration of office visits. For each dimension, the underlying distribution of all available data sets was examined and the data from different sources were compared. When the data from several sources and produced relatively homogeneous findings, those data were associated with greater confidence. For most codes in the sample and for most dimensions of the visit patterns, the Commission believes that the summary statistics present accurate accounts of actual surgical practice.

On the other hand, this was not the case in instances where the statistic was based on only one source of objective data, the sample size for each of the available data sources was low, or there was a substantial discrepancy in the underlying statistical distributions of the various data sources contributing to the summary statistic. In assigning preliminary visit patterns, the apparent reliability of the objective data was considered.

A description of how summary statistics were developed for each dimension of the visit patterns follows. In particular, the challenges that had to be overcome to make the data useful and caveats concerning the data are discussed.

### Length of Stay

Length of stay data were used to approximate the number of postoperative hospital visits associated with each operation. This is because objective data on the number of postoperative hospital visits are limited by surgical global policies used by most Medicare carriers and other payers. Theoretically, physicians rarely submit separate bills for visits provided during specified surgical global timeframe. Data are plentiful, however, on length of hospital stay, which can be used to determine a minimum bound for the number of hospital visits.[7]

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[7] Adjustments were made to length of stay to account for operations that typically require more than one visit a day for certain days of the hospitalization (See Chapter 3).

Objective data were used to develop summary statistics on the length of stay of the typical patient, undergoing the surgery described by each of the sample codes. While no single data set was completely representative, together they describe all patient types and provide a reasonable estimate of typical length of stay. Each of the four sources of data (MEDPAR, CPHA, Kaiser Permanente, and NHDS) provided a slightly different representation of the population. The MEDPAR file contains claims by the Medicare population; CPHA data represent a nonrandom, but substantial, national sample of short-term hospital discharges (all ages); and Kaiser Permanente data provide information on the experience of an HMO. NHDS is the most representative data set since it contains a random sample of discharges from a random sample of hospitals. Unfortunately, its sample sizes are small for many operations.

Length of stay data were available for 99 percent of the CPT codes in the sample. For 82 percent of the codes, data were available from three or four sources.

**Data Analysis.** Each of the data sources required special consideration in the process of developing summary statistics for length of stay. First, all data were reported by ICD-9 codes and had to be crosswalked, as described above, to CPT codes, which are the basis for physician payment. For CPHA data, reported according to aggregations of several ICD-9 codes, the length of stay for the group of ICD-9 codes was matched to corresponding CPT codes. Hence, the CPHA length of stay may be less precise at the CPT code level than the other data sources.

The CPHA data presented another challenge that required consideration and decision. These data reflect both outpatient and inpatient episodes of care. Outpatient care does not include an overnight stay and therefore is represented by zero days length of stay in the data file. Inclusion of these stays, which other data sources defined as outpatient, can bias downward the estimated length of stays for operations commonly performed on an outpatient basis. Unfortunately, these observations could not be deleted because summary tabulations were the only data available. ICD-9 codes for which the median length of stay is zero (indicating that at least half the operations are performed on an outpatient basis) were treated as missing in the analysis.

Adjustments were also made to the Medicare and Kaiser files. First, some observations were excluded to ensure that calculated lengths of stay were not influenced by stays that were shortened or lengthened by factors not attributable directly to the surgery in question. Episodes including more than one surgical global operation during the hospital stay were excluded. In addition, observations representing patients who died in the hospital were deleted from the file.

NHDS statistics for length of stay for each code were weighted by the total frequency of the procedure in the hospital in question. The initial unit of observation was an individual discharge from a single hospital. These observations were weighted by the likelihood of the particular ICD-9-defined operation occurring at one particular hospital compared with other hospitals. For example, if hospital A discharged 10 hip replacement patients during the sample period while hospital B discharged 50, an observation from hospital B would receive a weight five times as large as the weight attributed to hospital A.

### Number of Office Visits

Three sources of objective data containing claims and medical record information were used to estimate the number of postoperative office visits associated with each operation in the sample. These sources were Kaiser Permanente, Carle Clinic, and the MEDPAR/BMAD file. Data from Kaiser Permanente were available for 76 percent of all code/specialty combinations in the sample. Carle Clinic data were available for 27 percent. Adequate sample sizes were available from more than one of the three sources for 43 percent of all code/setting combinations, while only one source of data was available for 45 percent of codes. Adequate data were not available for the remaining 11 percent of code/setting combinations.

As with the length of stay sources, these three sources combined, provide a good range of population subgroups: the aged and disabled (national), an HMO population from the northwest region of the nation, and a mixed population (Medicaid, private pay, and HMO) from a multispecialty clinic located in a small midwestern city.

**Data Analysis.** All three files were edited to eliminate episodes of care that may not reflect office visits provided in association with the operation in question. If a patient underwent a second operation (as opposed to a procedure) within an episode of care, this episode was removed from the database. In addition, episodes of care that ended in the death of a patient were removed. Linked inpatient/outpatient files permitted this type of editing.

Depending on practice style and location, patients may be seen by nonphysician practitioners (for example, physician assistants and nurse practitioners) for postoperative office visits. These visits are among the postoperative visits counted in all data sets. In the cases of Kaiser and Carle Clinic, visits provided by nonphysician practitioners were counted explicitly.[8] The linked MEDPAR/BMAD file reflects visits provided by nonphysician practitioners to the extent that surgeons bill the Medicare program for services provided by their nonphysician practitioner employees.[9] Incorporating visits provided by nonphysicians avoids undercounting the number of postoperative visits provided to patients.

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[8] The Kaiser file distinguished visits to the principal surgeon, visits to other surgeons in the same department as the principal surgeon, and visits to nonphysician practitioners in the same department as the principal surgeon. The Carle Clinic file distinguished between visits provided by the principal surgeon and those provided by other practitioners in the principal surgeon's department. Analysis using Kaiser data revealed little difference between two counts of visits: counts of visits provided by the principal surgeon and counts of visits provided by the principal surgeon and all other practitioners in the surgeon's department. The results were very close. The medians differed for only 15 codes, and in 14 of these instances, the median differed by only a single visit.

**Special MEDPAR/BMAD Analysis.** Special consideration was given to the effect of surgical global policies on Medicare claims data. All Medicare carriers have surgical global service policies. There are, however, differences across carriers in the duration of the pre- and postoperative periods covered by the surgical global policy. In 1988, the Commission surveyed 55 of 56 carriers for four operations commonly performed on the elderly. The survey showed that global policies ranged from exclusion of all postoperative visits for some operations to inclusion of visits for more than 180 days for others (PPRC 1989). In about one-fifth of carrier areas, postoperative visits were limited to the hospital setting.

Due to these various global policies, it was expected that the Medicare data would reflect few postoperative visits, particularly in the initial days following surgery. For this reason, no attempt was made to obtain information about the number of postoperative hospital visits from this file.

To calculate the number of postoperative office visits, an analysis was conducted using data from the 14 Medicare carriers having relatively narrow global policies. A narrow policy is defined as one that includes 14 and fewer days of postoperative care. In these carrier areas, the fee for surgery includes visits provided in the first 14 postoperative days. Surgeons can bill separately for all visits provided after the fourteenth day.

Theoretically, most postoperative office visits provided in these narrow carrier areas should appear on the BMAD file. A preliminary analysis of six common operations comparing data from the 14 narrow carriers with data from all other carriers revealed, however, that although bills are submitted more frequently after the fourteenth postoperative day in the narrow carrier areas, most surgical episodes in all carrier areas contained no claims for postoperative visits by the principal surgeon (Table 2-5).

Given the low percentages of episodes having any claims for postoperative visits, it was evident that the median number of visits calculated from these data would generally be zero. Therefore, only episodes having a positive number of visits were used in the analysis. When the analysis was limited to these episodes (inferring that surgeons were aware that separate billing was possible), the narrow carriers did not always present a larger number of postoperative office visits (Table 2-6).

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[9] Nonphysician services are covered by Medicare when provided "incident to physician services."

### Table 2-5. Percent Episodes with Zero Postoperative Visits

| CPT Code | Description | Narrow Carriers | Broad Carriers |
|---|---|---|---|
| 11642 | Excision, Malignant Lesion | 70% | 81% |
| 27130 | Total Hip Replacement | 61 | 89 |
| 33512 | Triple Coronary Bypass | 95 | 94 |
| 52601 | Transurethral Resection of the Prostate | 63 | 83 |
| 64721 | Neuroplasty, Carpal Tunnel | 61 | 83 |
| 66984 | Cataract Extraction | 49 | 88 |

Source: Linked MEDPAR/BMAD file (1987).

### Table 2-6. Median and Mean Numbers of Office Visits in 90 Days for Episodes with >0 Visits

| CPT Code | Description | NARROW CARRIERS[a] |  | BROAD CARRIERS[b] |  |
|---|---|---|---|---|---|
|  |  | Median | Mean | Median | Mean |
| 11642 | Excision, Malignant Lesion | 1 | 1.9 | 1 | 1.8 |
| 27130 | Total Hip Replacement | 1 | 2.0 | 1 | 2.8 |
| 33512 | Triple Coronary Bypass | 1.5 | 2.3 | 2 | 3.8 |
| 52601 | Transurethral Resection of the Prostate | 2 | 2.0 | 1 | 2.1 |
| 64721 | Neuroplasty, Carpal Tunnel | 2 | 2.4 | 1 | 1.8 |
| 66984 | Cataract Extraction | 3 | 3.3 | 1 | 2.0 |

Source: Linked MEDPAR/BMAD file (1987).

Note: [a] Narrow carriers are defined as those having a surgical global policy that includes only the first 14 days of postoperative care in the surgeon's fee.

[b] Broad carriers are defined as those having a surgical global policy that includes more than 14 days of postoperative care in the surgeon's fee.

Because of the ambiguous nature with which both surgeons and carriers appear to comply with stated global policies, the difference between the median number of visits in the 14 narrow carriers versus all carriers pooled together was examined.[10] In instances where both the narrow and pooled medians were based on 10 or more observations (N = 142) and the narrow median exceeded the pooled median (27 percent), the narrow median was used in creating the summary statistic for number of office visits. When the reverse was true (8 percent), the median across all carriers was used. If the narrow carrier median was based on fewer than 10 observations, the pooled median was used, provided that it was based on at least 10 observations. For 65 percent of 142 codes where the narrow and pooled medians were based on 10 or more observations, the medians were equal. The minimum number of observations for any CPT code was 10 while the maximum was 3,899. Data were available for 39 percent of all code/specialty combinations in the sample.

It appears that if surgeons bill for any postoperative visits, they are likely to bill for all postoperative visits, regardless of the carrier policy. Analysis of the distribution of visits across different sub-periods of the 90-day postoperative period was conducted using data from all carriers (Table 2-7).[11] If physicians submit claims for all postoperative visits, a larger proportion of the visits would be expected to occur early in the postoperative period, when the patient is still hospitalized. Analysis revealed that 41 percent to 57 percent of all visits are delivered in the first 30 days, while 15 percent to 25 percent occur during the last 30 days. These data suggest that underreporting during the early time period is not pervasive.

**Table 2-7. Percentage of Visits Occurring in Each Postoperative Time Period**

| | Sub-Intervals in Days | | | | | |
|---|---|---|---|---|---|---|
| **Code** | **0-15** | **16-30** | **31-45** | **46-60** | **61-75** | **76-90** |
| 11642 | 26% | 20% | 17% | 13% | 12% | 13% |
| 27130 | 36 | 19 | 15 | 13 | 7 | 11 |
| 33512 | 45 | 9 | 14 | 13 | 9 | 9 |
| 52601 | 18 | 23 | 18 | 17 | 13 | 11 |
| 64721 | 38 | 19 | 18 | 11 | 8 | 7 |
| 66984 | 29 | 15 | 15 | 16 | 14 | 12 |

Source: 1987 BMADIV using all carrier/code combinations reporting greater than zero visits within 90 days of surgery.

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[10] We explain the choice of medians as a summary statistic in Chapter 3.

[11] All carriers were used in this analysis since it appears that neither carriers nor surgeons adhere to stated global billing policies.

This analysis further suggests that even in the narrow carrier areas, surgeons frequently do not submit separate bills for routine postoperative care after the global period has ended, either because they are unaware of the global policy or because, regardless of the policy, they choose to bundle their postoperative care into their surgical fees. It also appears that carriers having broader (more than 14 days) global policies do not fully enforce these policies and allow payment for visits provided within the global timeframe.

### Duration

Estimates of the duration of four types of visits were required: pre- and postoperative hospital visits, recovery room visits, and postoperative office visits. Unlike the length of stay and number of office visits dimensions described above, data measuring the duration of visits associated with specific surgeries do not exist. Instead, two sources of data were used to create benchmarks against which the specialty society data could be compared: the SMS and the NAMCS. These benchmarks were applied to specialty society estimates for postoperative hospital visits, recovery room visits, and postoperative office visits. Specialty society data were relied upon for estimates of preoperative visit durations.

**Hospital Visit Duration.** The SMS does not report data according to all of the specialty designations that were used in this project. However, data were available for 10 specialties. As described in Chapter 3, the Commission extrapolated specialty-specific data to develop estimates for all 13 surgical specialties.

Benchmarks for the duration of hospital visits were calculated at the individual physician respondent level by dividing a physician's reported total time spent on hospital rounds per week by the total number of visits the physician provided during rounds per week. Across the 10 specialties, the median duration of hospital visits ranged from 15 to 30 minutes (Table 2-8).

Since this measure includes the time spent reviewing charts and reports and discussing patients with the nursing staff, it approximates floor time rather than encounter time. Because it also includes time spent providing consultations and initial hospital visits, it probably overestimates the average time spent in providing postoperative visits.

**Office Visit Duration.** Specialty-specific data for 10 specialties were used to develop estimates of average postoperative office visit durations. As with the SMS data, extrapolations were made to other specialties (described in Chapter 3). The median postoperative visit durations from NAMCS ranged from seven to 15 minutes (Table 2-9). Estimates of visit durations developed from NAMCS represent face-to-face, or encounter time.

**Table 2-8. Median Hospital Visit Durations from the AMA Socioeconomic Monitoring System, 1985-1989**

| Specialty | Number Respondents | Median Duration (Minutes) |
|---|---|---|
| Dermatology | 111 | 30 |
| General Surgery | 1138 | 18 |
| Neurosurgery | 138 | 15 |
| Obstetrics/Gynecology | 1275 | 17 |
| Ophthalmology | 315 | 30 |
| Orthopaedic Surgery | 626 | 15 |
| Otolaryngology | 352 | 24 |
| Plastic Surgery | 215 | 24 |
| Thoracic Surgery | 87 | 17 |
| Urology | 397 | 18 |

**Table 2-9. Median Postoperative Office Visit Durations from the 1985 National Ambulatory Medical Care Survey**

| Specialty | Number of Postoperative Office Visits | Median Duration (Minutes) |
|---|---|---|
| Dermatology | 45 | 8 |
| General Surgery | 766 | 10 |
| Neurosurgery | 56 | 15 |
| Obstetrics/Gynecology | 267 | 15 |
| Ophthalmology | 1226 | 15 |
| Orthopaedic Surgery | 472 | 10 |
| Otolaryngology | 221 | 10 |
| Plastic Surgery | 98 | 7 |
| Thoracic Surgery | 87 | 14 |
| Urology | 447 | 10 |

## CONCLUSION

This chapter described all sources of data the Commission used to develop surgical visit patterns. In addition, it has summarized the process used to select a subset of CPT codes from the universe of codes to develop visit patterns.

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# CHAPTER 3

# PRELIMINARY VISIT PATTERNS

Using data from objective sources and specialty societies, the Commission developed summary statistics and preliminary visit patterns for a sample of *Current Procedural Terminology* (CPT) codes. Estimates of the number of hospital visits were developed using four length of stay sources: the National Hospital Discharge Survey (NHDS), the Commission on Professional and Hospital Activities (CPHA), Medicare Part A claims data (MEDPAR), and data from Kaiser Permanente. Estimates of the number of office visits were developed using three sources: linked Medicare Parts A and B claims, Kaiser Permanente data, and Carle Clinic data. Finally, visit durations were based on information provided by specialty societies, the American Medical Association's (AMA) Socioeconomic Monitoring System (SMS), and the National Ambulatory Medical Care Survey (NAMCS).

Specialty society data were relied upon more heavily to estimate elements of the visit patterns for which objective data were not available. These were the number of postoperative hospital visits provided by the principal surgeon per day, the duration of recovery room visits, and the number of preoperative hospital visits.

This chapter describes how preliminary visit patterns were developed for each dimension of perioperative care and how these compared with data from 13 specialty societies. Chapter 4 describes how a national survey of practicing surgeons was used to refine the preliminary visit patterns.

## CREATION OF SUMMARY MEASURES AND VISIT PATTERNS

The following sections describe how each element of the preliminary visit patterns was assigned.

### Number of Preoperative Visits

Since objective data do not exist for either the number of preoperative visits typically provided the day before and the day of surgery or the average duration of preoperative visits, data submitted by the specialty societies were used to develop preliminary estimates of these dimensions. For operations typically performed in an inpatient setting, the number of preoperative visits (zero, one or two) suggested by the specialty society was assigned. For 67 percent of all inpatient surgeries, specialty societies assigned one preoperative visit to each of the two preoperative days, the day before and the day of surgery (Table 3-1).

**Table 3-1. Distribution of Preoperative Visits as Reported by Specialty Societies**

| | Percent of Total | |
|---|---|---|
| | **Inpatient Operations** | **Outpatient Operations** |
| No Preoperative Visits | 0.5% | 35.0% |
| Day Before Surgery Only | 1.4 | 2.0 |
| Day of Surgery Only | 31.0 | 60.0 |
| Both Days | 67.0 | 3.0 |

Source: Specialty society data as reported to the Commission.

For another 31 percent of inpatient surgeries, a single visit on the day of surgery was assigned. After consulting with one specialty society that did not assign any preoperative visits because it misunderstood the instructions, one preoperative visit was added to all inpatient operations performed by that specialty.

For operations occurring in the ambulatory setting, all codes were assigned one preoperative visit since it appeared that the specialty societies interpreted the instructions regarding preoperative visits for ambulatory operations differently. It is also reasonable to assume that all surgeries, regardless of setting, would be associated with at least one preoperative visit, although it may be a brief visit. For outpatient operations, 60 percent of the surgeries were assigned a single visit on the day of surgery, while 35 percent of ambulatory surgeries were not assigned any preoperative visits by specialty societies.[1]

### Number of Postoperative Hospital Visits

The unweighted mean of the median length of stay for four data sets (CPHA, NHDS, Kaiser Permanente, and MEDPAR) was used as the summary statistic for length of stay from which the number of postoperative hospital visits was estimated. Because length of stay data are not distributed normally, but tend to be skewed to the right, medians and first and third quartiles, rather than means, were considered as summary statistics. The effect of using these various statistics was analyzed, and the median was selected as most representative of the "typical" patient's experience. Typical is intended to represent the patient seen most frequently for a given CPT code. A measure of typical should not be heavily influenced by extreme clinical cases that represent outliers.[2]

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[1] One specialty society did not assign any preoperative visits to inpatient procedures. (This was adjusted as described in text). For ambulatory operations, three specialty societies understood the global policy to imply that no preoperative visits would be included. The percentages in Table 3-1 exclude these four specialty societies.

Only data sources with 10 or more observations for a given CPT code were used to calculate the summary statistic for that code. The medians of all objective data sources meeting the sample size criteria were averaged. A simple unweighted mean was used because there was no reason to have greater confidence in one data set than in another. For example, while CPHA provides the largest sample size of all the length of stay data sources, it is based on a non-random sample of hospitals and uses groupings of *International Classification of Diseases, 9th Revision* (ICD-9) codes as the unit of observation. On the other hand, NHDS provides a nationally representative random sample, but is based on a fairly small sample size. Similarly, Medicare data are more specifically defined and nationally representative than CPHA, and are often based on a larger sample size than NHDS. However, they reflect the experience of the aged and disabled population.

Summary statistics for length of stay were rounded in the direction of specialty society estimates. If the average of the medians was 4.4 days, and the society submitted 5.0 days, then a length of stay of 5.0 days was assigned to the operation. If specialty society data were not available for a given code, the summary statistic was rounded arithmetically. When multiple specialty societies provided different estimates, the summary statistic was rounded in the direction of the mean society estimate.

Length of stay data provide a minimum estimate of the number of hospital visits, assuming that all inpatients are visited at least once a day. Patients undergoing some operations, however, may typically be visited more than this, especially in the early postoperative period. Specialty society data were used to adjust postoperative length of stay to account for these additional visits. When the difference between the specialty society estimates of the number of postoperative hospital visits and length of stay was one, a single visit was added to the length of stay to determine the total number of postoperative visits. When the society data implied more than one hospital day with more than one visit (a difference between the specialty society's number of hospital visits and length of stay of two or more), one-quarter of the difference between the implied number of visits per day and length of stay was added to the length of stay statistic described above.[3]

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[2] The concept of "most frequently seen" most closely corresponds to the statistical measure of the mode. However, since many of the data sets contained relatively few observations, the mode was not well determined.

Operations that were assigned multiple postoperative hospital visits for one or more postoperative days are dominated by otolaryngology, general surgery, orthopaedics, and urology. Among the operations that were adjusted in this way were total laryngectomy with radical neck dissection (CPT 31365) and radical nephrectomy with regional lymphadenectomy (CPT 50230). Several other operations where the difference between length of stay and number of postoperative visits was one were assigned an additional visit. Many of the same specialties were represented by this second group. However, several operations performed by specialists in oral and maxillofacial surgery, obstetrics and gynecology, thoracic surgery, and vascular surgery were also included.

**Comparison of Objective and Specialty Society Data.** There was generally good agreement between specialty society estimates for length of stay and the summary statistics developed from objective sources (Table 3-2). To compare the two, an interquartile range was calculated for each code using the objective data sources. The lower bound was the lowest first quartile from all available data sources, while the upper bound was the highest third quartile. This range, along with the range in medians, was used to assess the overall agreement between specialty societies' data and objective data through the development of indices of deviation.

To calculate these indices, each code was scored. If the society estimate for a code was within the range of medians for the dimension, the code received a score of 2; if the estimate was outside the range of medians but inside the quartile range, it received a score of 1; if it was outside the quartile range, it received a score of 0. Thus, the maximum number of points attainable for each specialty/dimension was equal to twice the number of codes. Indexes were calculated as actual scores as a percentage of total possible scores, so the maximum possible score was 100.

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[3] Algebraically, this is calculated as:

$$0.25 * LOS * [Visits/Days - 1] + LOS$$

where length of stay is the summary statistic for length of stay, rounded in the direction of the specialty society estimate; Visits and Days are the specialty society estimates of the number of postoperative hospital visits and length of stay respectively. If, for example, the summary statistics LOS for a code is 7 days and the specialty society estimate of LOS is 8, but the number of postoperative visits is estimated to be 15, the following would be calculated:

$$0.25 * 7 * [15/8 - 1] + 7 = 8.53$$ which would be rounded to 9 visits.

**Table 3-2. Indices of Deviation Between Specialty Society and Objective Data**

| Specialty | Length of Stay Index |  |  |  | Office Visit Index |  |  |  |
|---|---|---|---|---|---|---|---|---|
|  | Score | #Codes | #Above[a] | #Below[b] | Score | #Codes | #Above | #Below |
| Dermatology | -- | -- | -- | -- | 36 | 145 | 126 | 0 |
| General Surgery | 68 | 96 | 43 | 6 | 54 | 150 | 76 | 16 |
| Neurosurgery | -- | -- | -- | -- | 21 | 17 | 12 | 2 |
| Obstetrics/Gynecology | 39 | 22 | 17 | 0 | 42 | 33 | 23 | 0 |
| Ophthalmology | 90 | 5 | 1 | 0 | 50 | 44 | 38 | 2 |
| Oral/Maxillofacial | 82 | 58 | 12 | 6 | 39 | 85 | 71 | 3 |
| Otolaryngology | 67 | 109 | 38 | 11 | 30 | 149 | 117 | 4 |
| Orthopaedic Surgery | 75 | 66 | 19 | 5 | 19 | 55 | 47 | 4 |
| Plastic Surgery | 46 | 47 | 33 | 1 | 5 | 143 | 141 | 0 |
| Podiatry | 95 | 21 | 2 | 0 | 0 | 34 | 34 | 0 |
| Thoracic Surgery | 83 | 29 | 6 | 3 | 13 | 20 | 12 | 7 |
| Vascular Surgery | 61 | 18 | 9 | 1 | 63 | 15 | 9 | 0 |
| Urology | 58 | 31 | 23 | 0 | 32 | 27 | 22 | 2 |
| **Mean** | 69 |  |  |  | 31 |  |  |  |

Notes: The neurosurgery and dermatology societies did not provide data on length of stay.

[a] Indicates number of codes for which the specialty society estimate exceeds the upper bound of the interquartile range of objective data.

[b] Indicates that number of codes for which the specialty society estimate is less than the lower bound of the interquartile ranges.

Scoring method: Specialty society estimate within range of medians = 2; estimate outside the range of medians, but within interquartile range = 1; estimate outside of interquartile range = 0.

Overall, the indices for length of stay were quite high. Eight of the 11 specialties compared had scores exceeding 60 and four specialties scored over 80.[4] These deviation indices varied considerably across specialties. Most of the deviation between the specialty society data and the objective data was attributable to higher estimates from the specialty societies. Many more specialty society estimates exceeded the range of medians than fell below it. These findings are not surprising since specialty societies did not use objective data to estimate length of stay. Rather, they relied upon the experience of the physicians who developed the visit patterns. Many societies openly stated that their estimates could be inaccurate. For this reason, and because objective length of stay data are abundant, the Commission gave more weight to objective data when calibrating the preliminary number of hospital visits.

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[4] Two specialties did not submit length of stay estimates to the Commission.

**Age Adjuster for Length of Stay.** The relative value scale (RVS) of physician work, which forms the basis of the Medicare Fee Schedule, was developed using clinical vignettes that describe the typical patient undergoing each service. In many cases, the typical patient was not a Medicare patient. Because of this precedent, it was necessary to develop perioperative visit patterns that represent the care provided to the typical patient of all ages undergoing a particular operation.[5]

Except for the Medicare data, all of the objective data used to estimate the number of postoperative hospital visits reflect all age groups in the population. To the extent that length of stay is different for the elderly compared with other age groups, the summary statistics developed from this data source would have to be adjusted. To determine whether this was necessary, data from Kaiser and CPHA were used to compare lengths of stay for elderly and all-age patients undergoing each operation. Comparisons were made within each data set to isolate the effect of age from other potential patient differences that may exist across data sets.

The ratio of median length of stay, all ages, to median length of stay for the over-65 population was calculated for codes having at least 10 observations. The average ratio from the Kaiser data for 109 ICD-9 codes was 0.88; that for CPHA was 0.83, based on 242 ICD-9 groupings. These ratios suggest that length of stay is longer for the elderly population. Thus, length of stay medians from the MEDPAR file, used in the calculation of the summary length of stay statistic, were deflated by 0.85 (the average of the CPHA and Kaiser average ratios).

The difference in length of stay for the elderly and the total population probably varies across operations, depending partly on the relative frequency with which each operation is performed on the elderly. Therefore, a constant deflator to the Medicare data is not an ideal adjustor. However, available data did not provide procedure-specific deflators. To minimize the potential to overdeflate the data, a Medicare length of stay median was never deflated below the average median from the three data sets (CPHA, NHDS, and Kaiser) based on an all-age population. The average median of the three all-age data sets was used as a floor.

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[5] In the future, the Commission will consider whether age adjusters are necessary for particular services in the generic scale of relative work since this RVS forms the basis for the Medicare Fee Schedule. An adjuster may need to be applied in instances where a Medicare patient is not the typical patient undergoing a specific operation.

### Duration of Hospital Visits

Since there are no objective data on the duration of hospital visits associated with specific surgeries, estimates of this dimension relied heavily on data submitted by specialty societies. Preoperative visits durations were estimated using specialty society data alone. Data from the American Medical Association's SMS provided benchmarks against which the specialty society estimates of duration for postoperative hospital visits (recovery room and nonrecovery room) could be compared and adjusted.

**Preoperative Hospital Visits.** Specialty society data were relied upon to assign durations to preoperative visits. In analyzing the preoperative durations estimated by specialty societies, some clear patterns emerged. For ambulatory surgeries, the first (or only) preoperative visits were longer than subsequent preoperative visits. In addition, the duration of visits preceding ambulatory operations was close to the duration of subsequent, or day of surgery, inpatient visits. This information was used to create several decision rules.

Durations for preoperative visits associated with inpatient operations were assigned as first and subsequent visits using ceilings based on each society's third quartile duration as measured across all preoperative visits for the sample codes. The third quartile, rather than the median, was used as a ceiling to account for operations that require above-average preoperative care. First preoperative visits were capped at 35 minutes, while subsequent preoperative visits were capped at 15 minutes. Durations were rounded to the nearest five minutes.

Preoperative visits associated with ambulatory surgery were assigned the durations suggested by specialty societies, capped at 20 minutes. This limit represents the average of each society's third quartile duration.

**Postoperative Hospital Visits.** Seven of 13 specialties submitted durations for postoperative hospital visits that agreed, on average, with data from the SMS. Thus, these durations were incorporated, without adjustment, into the preliminary visit patterns. The durations submitted by the remaining six specialties were substantially longer than those suggested by the SMS data. They were therefore deflated using the ratio of the SMS specialty-specific median hospital visit duration (calculated as total hours spent on hospital rounds/number of patient visits) to the specialty society's median duration of nonrecovery room hospital visits across all codes.[6]

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[6] When more than one specialty society submitted a visit pattern for a particular code, the deflated average durations submitted by each society were averaged. However, specialties that accounted for a low proportion of Medicare dollars, based on summary Medicare claims data organized by specialty, were not included in the average. The deflated duration (or average of several specialty societies' duration measures) was rounded to the nearest five minutes.

Visit durations were deflated as follows: oral and maxillofacial surgery (.88), orthopaedic surgery (.75), podiatry (.60), thoracic surgery (.57), urology (.90), and vascular surgery (.85). For three specialties not explicitly included in the SMS data, the following special calculations were made:

- Oral and maxillofacial surgery: a deflator was created using data for codes that were common to oral surgery and other specialties. This deflator was based on the median deflated duration values for the overlap specialties (as determined using the SMS data) to the undeflated median specialty society duration.
- Podiatry: SMS data collected from orthopaedic surgeons were used.
- Vascular surgery: SMS data collected from thoracic surgeons were used.

Postoperative hospital visit deflators were also used, where indicated, to adjust specialty society estimates of recovery room visit durations.

### Number of Postoperative Office Visits

Number of office visits were assigned using the unweighted mean of the median number of postoperative office visits from all objective data sets having 10 or more observations per code. As with lengths of stay, the summary statistic was rounded in the direction of the specialty society. The three data sets used were the linked Medicare file, Kaiser Permanente, and Carle Clinic.

There was considerable agreement across data sources concerning the number of postoperative visits. Only 20 percent of sample codes with multiple data sources showed a range of more than one postoperative office visit across medians. Where Medicare data were available, they represented the lowest median in ranges exceeding one visit. Carle Clinic data were available for 29 of the 51 codes with ranges exceeding one visit and, in 23 of these cases, the Carle median was the highest. Among the codes having ranges in medians exceeding one visit, most had ranges of two to four visits. Rather than being clustered in one or two specialties, these codes appear randomly across all specialties. This suggests that visits were not systematically underestimated or overestimated.

**Comparison of Objective and Specialty Society Data.** Although the number of postoperative office visits for each operation was similar across objective data sets, specialty society estimates tended to be higher (Table 3-2). This discrepancy may represent specialty societies' unintended estimation of "textbook medicine" rather than actual care rendered to the typical patient undergoing each surgery. Indices of deviation ranged from 0 to 63, with 10 of 13 specialties scoring under 50.

Differences between specialty society estimates and objective data summary statistics of two to four visits were widespread and found in all specialties and for several types of operations. Differences of five or more visits, however, were clustered in certain specialties. For example, large discrepancies were found for several incision and drainage, debridement, skin graft, and excision procedures commonly performed by plastic surgeons and dermatologists. Large discrepancies were also found for several codes in the 28000 series of CPT, including excision of interdigital neuroma, hammertoe operation, and metatarsal osteotomy. In addition, several cataract procedures were among the codes having a difference of five or more visits.

As noted above, there was considerable agreement among objective sources on the number of postoperative office visits, and these data were relied upon to assign preliminary visit patterns. The differences between the specialty society estimates and objective data sources for this dimension, however, raised concern that the objective sources may underestimate the number of postoperative office visits. The survey of physicians, described in Chapter 4, played an especially important role in the final determination of this visit pattern dimension.

**Effect of Age on the Number of Postoperative Office Visits.** Consideration was given to whether an adjustment to the Medicare data was needed to account for differences in the number of office visits provided to elderly patients compared with the nonelderly. This analysis was undertaken for the same reason length of stay analysis across data sets was performed -- to ensure that the preliminary visit patterns reflected care provided to the typical patient undergoing each operation.

An adjustment to the Medicare data was unnecessary. Although it might be expected that longer lengths of stay experienced by the elderly could lead to fewer postoperative office visits or, alternatively, that frailty could result in more postoperative visits in the office, no such patterns were found.

Using Kaiser Permanente data, ratios of the number of office visits associated with the elderly population to the number of visits associated with an all-age population were created for 107 ICD-9 codes with a sample size of at least 10. Univariate statistics revealed that the 25th, 50th, and 75th percentiles of these ratios were all 1.0. The mean ratio was 1.06. Of the 13 codes associated with fewer visits provided to the elderly population than the all-age population, seven were associated with longer lengths of stay for elderly patients, one had a shorter length of stay for elderly patients, and five showed no difference across age categories. Of the 20 codes where a greater number of postoperative office visits were associated with the elderly than with the all-age group, six showed the elderly stayed in the hospital longer, and for 14 showed no difference in length of stay.

These results do not suggest a systematic relationship between length of stay and number of postoperative office visits. There appear to be no significant differences between the number of office visits provided to the elderly population and to people of all ages.

### Postoperative Office Visit Duration

Office visit durations were assigned using data from the specialty societies and the 1985 NAMCS using the same method as was used for hospital visits. Ratios of specialty specific NAMCS median postoperative visit durations to specialty society median duration of postoperative office visits across all codes were calculated. Data from nine specialty societies were deflated as follows: dermatology (.53), neurosurgery (.75), oral and maxillofacial surgery (.62), orthopaedic surgery (.50), otolaryngology (.83), plastic surgery (.47), podiatry (.50), thoracic surgery (.35), and urology (.33). The remaining societies submitted duration measures that were, on average, no longer than those suggested by the NAMCS data. Durations were rounded to the nearest five minutes where warranted.

Because the NAMCS did not explicitly collect data on some specialties, the following special calculations were made:

- Oral and maxillofacial surgery: a deflator was created using data for codes that were common to oral surgery and other specialties. This deflator was based on the median deflated duration values (as developed using NAMCS data) for the overlap specialties to the undeflated median specialty society duration.

- Podiatry: NAMCS data from orthopaedic surgery were used.

- Vascular surgery: NAMCS data from thoracic surgery were used.

When multiple societies submitted postoperative visit durations for a given code, the deflated average durations submitted by each society were averaged. However, specialties that perform the operation relatively infrequently, as evidenced by a low proportion of Medicare dollars, were not included in the average.

## SUMMARY

This chapter described the Commission's methods for assigning preliminary visit patterns for a sample of surgical operations. For some codes, insufficient data existed to warrant complete confidence in the resulting visit patterns, or dimensions within particular visit patterns. For all codes, a test of the validity of the methods used in assigning visit patterns was judged to be an important next step.

# CHAPTER 4

# SURVEY OF PHYSICIANS

Preliminary visit patterns were established for a subset of surgical operations using data from 13 specialty societies and several sources of objective data, as described in Chapter 3. Analysis revealed variation among objective sources and between summary statistics developed from these data and specialty society estimates. Therefore, a national survey of practicing physicians was conducted to test the reasonableness of these patterns and the methods by which they were developed.

Survey respondents confirmed most of the elements in the preliminary visit patterns for the sampled operations. This suggests that the rules and methods applied to the specialty society and objective data are generally valid. In fact, the majority of physicians agreed with all dimensions but one, the number of postoperative office visits provided within 90 days, for a substantial number of codes. After the differences between the preliminary visit patterns and the patterns based on survey median responses were analyzed, the survey results were adopted as the Commission's final visit patterns.

## THE SURVEY PROCESS

The survey was conducted during the fall of 1990. Survey design, pretest, data entry, and analysis were conducted by the Commission's contractor, Abt Associates Inc. The following sections describe how the survey was designed and conducted.

### Selection of Codes

A total of 160 operations, representing a broad range of practice for each specialty and encompassing a high percentage of Medicare expenditures for surgical global services, were selected for the physician survey. Some operations were included in multiple specialty society surveys if more than one specialty commonly performed them. The survey included 212 code/specialty combinations, representing 62 percent of Medicare expenditures on surgical global operations (Table 4-1).

The selection process began with the list of 459 *Current Procedural Terminology* (CPT) codes used in the analysis of objective data since selection of these codes stressed volume and expenditure representation. Because the codes in the objective data sample were organized into families based on the *International Classification of Diseases, 9th Revision*

(ICD-9), a representative of each family with significant expenditures was selected for the survey. To minimize respondent burden and thereby increase the response rate, the number of codes on any single survey was limited to 25, and most surveys contained considerably fewer.

**Table 4-1. Percent of Medicare Expenditures for Surgical Global Services Represented by Physician Survey**

| | |
|---|---|
| **Total** | **62%** |
| Dermatology | 91 |
| General Surgery | 44 |
| Neurosurgery | 45 |
| Obstetrics-Gynecology | 71 |
| Ophthalmology | 85 |
| Oral and Maxillofacial Surgery | 31 |
| Orthopaedic Surgery | 40 |
| Otolaryngology | 31 |
| Plastic Surgery | 51 |
| Podiatry | 76 |
| Thoracic Surgery | 42 |
| Urology | 77 |

Source: 1987 BMAD.

Both inpatient and outpatient operations were included in most surveys, although the mix varied across specialties depending on where the specialty performs the most operations. The plastic surgery questionnaire, for example, contained four inpatient operations and 16 outpatient operations, while the vascular surgery questionnaire contained only inpatient operations. Of the 212 code/specialty combinations in the surveys, 54 percent described inpatient operations. For operations performed in both inpatient and outpatient settings, the more common setting (based on Medicare expenditures and specialty society estimates) was selected.

Ninety-one codes surveyed by Hsiao and his colleagues (Phases I and II) were included in the physician survey in order to maximize comparisons for the time and work associated with surgical global services developed from the two surveys. Codes in the Hsiao study accounting for minor expenditures, codes deleted from CPT, or codes that are very similar to other surveyed operations were excluded.

### Sampling

A random sample of 250 physicians in each of 11 specialties was drawn from the American Medical Association's (AMA) Masterfile of physicians.[1] The Masterfile contains information on all U.S. physicians, regardless of whether they are members of the AMA. To ensure a representative sample of active surgeons and to be consistent with eligibility criteria of other recent physician surveys, the following categories of physicians were excluded prior to sampling:

- retired physicians,
- foreign medical graduates with a temporary license to practice in the United States,
- federally employed physicians, and
- residents or fellows.

Physicians were selected for each specialty based on their self-designated primary specialty as listed in the Masterfile. After the sample was drawn, all physicians who had participated in the specialty societies' efforts to provide the Commission with visits patterns and all physicians who had participated in the pretest phase of the survey were deleted from the sample.

### The Survey Instrument

Unique survey instruments were prepared for each of the 13 surgical specialties, maintaining the same format across specialties (Appendix G). The surveys had three parts. Part I contained questions designed to screen sample physicians according to eligibility criteria. These questions were designed to double-check the screening process that was used in sampling physicians from the Masterfile.[2] Part I also contained general instructions for completing the survey. Part II, representing the body of the survey, presented preliminary visit patterns in grid form with one code per page. Part III requested demographic and practice information from surgeons.

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[1] Two specialties, podiatry and oral and maxillofacial surgery, are not well-represented on the Masterfile because most of their members are not medical doctors. Therefore, the relevant specialty societies were asked to supply a random sample of their members. The American Podiatric Medical Association was unable to provide a sample of members. However, one was drawn from its membership directory. Since it was not possible to distinguish retired or resident physicians from this directory, a larger sample of 266 physicians, was selected. The American Association of Oral and Maxillofacial Surgeons provided a sample of 250 members, selected using the same criteria that were applied to the AMA Masterfile. For cardiothoracic surgery, a sample of 295 physicians was drawn because the AMA classification of this specialty is more ambiguous than for other specialties.

[2] Instead of asking physicians if they were retired, an indicator used to sample from the AMA Masterfile, they were asked if they engaged in patient care activities for at least 20 hours per week. Physicians who met this criteria, even if retired, were included in the survey.

Instructions to surgeons outlined the purpose of the survey vis-à-vis the development of resource-based relative work values for use in the Medicare Fee Schedule. This review reinforced the contents of both the advance and cover letters (Appendix H). Physicians were reminded that the visit patterns should describe care provided by the principal surgeon to the typical patient within 90 days of surgery. A sample response page depicted a completed visit pattern for an operation. The sample was displayed facing a page of instructions that explained physician review of the visit pattern in a step-by-step manner.

In Part II of the survey, visit patterns were displayed separately, one per page. The top of each page contained the CPT code and descriptor and the surveyed setting (inpatient or outpatient). Respondents were asked to indicate the number of times in the past year they had performed the operation in the specified setting. Physicians were asked to check a box below this question if they did not feel sufficiently experienced to evaluate the visit pattern for the operation. If physicians checked the box, they were instructed to go on to the next page. If physicians felt experienced enough to answer questions on the operation, they completed the page. These "fitness-to-rate" questions were essential to ensure that responses reflected the clinical experience of practicing surgeons familiar with each operation. Data on the number of times each respondent performed each operation allowed analysis of the effect of experience on responses. The results of this analysis is reported below.

Inpatient visit patterns were presented in grid form according to six dimensions:

- length of stay in the hospital,
- total number of postoperative hospital visits,
- average recovery room visit duration,
- average duration of all other hospital visits,
- total number of postoperative office visits within 90 days following surgery, and
- average duration of postoperative office visits.

Outpatient grids omitted length of stay and the number and duration of hospital visits. Recovery room duration was specified as zero if the specialty society had not indicated a recovery room visit.

General instructions for completing the survey were shown on each page. Physicians were asked to review the dimensions of each visit pattern for reasonableness. They were instructed to check either a column labeled "about right" or to write in their estimate for the particular dimension.

Part III questions requested information on the physicians' specialty and subspecialties, board certification(s), primary mode of practice (solo/group practice, academic, and health maintenance organization [HMO]), primary mode of compensation (fee-for-service, capitation), and primary affiliation (hospital size, residency programs). These data were used to determine the degree of respondent representation.

### Pretests of the Survey Instruments

Two pretests were conducted to determine whether the format of the survey instrument was effective in obtaining the desired information. The first pretest consisted of a focus group of surgeons, while the second consisted of a mailed pilot survey.

Three Boston-based surgeons who met all eligibility criteria (two orthopaedic surgeons and one ophthalmologist), met with the Abt Associates' project director. They were provided with background on the purpose of the survey and were asked to complete specialty-specific survey instruments. A discussion was held to solicit comments on the format of the instrument, the clarity of the instructions, and the content of advance and cover letters. This process yielded particularly good suggestions related to the organization and detail of the instructions, and revisions to the visit pattern grid. The time necessary to complete the survey was estimated on the basis of the focus group experience.

After revising the survey instrument based on the suggestions of focus group participants, a pilot survey was fielded. A representative group of physicians, suggested by physicians who had formerly worked with Abt Associates, state medical and surgical specialty societies, and members of the focus group, was recruited to participate in the pilot. Each physician was mailed a packet containing the advance and cover letters, a prepaid return envelope, and the survey instrument. Nineteen responses from the specialties of cardiothoracic surgery, general surgery, obstetrics/gynecology, ophthalmology, otolaryngology, urology and vascular surgery were received for a response rate of 59 percent.

Comments from participants in the pilot survey were extremely useful in the final refinement of the instruments. Responding surgeons made several changes to the elements of visit patterns, showing their disagreement with certain preliminary assignments. This confirmed that the survey's format was valid for refining preliminary visit patterns. A few surgeons commented that they had difficulty considering the typical patient for each operation given the wide range of patients they treat. These comments were used to make final revisions to the survey instrument.

### Field Period

Approximately one week before mailing the instrument, a personalized advance letter was mailed from Philip R. Lee, M.D., the chairman of the Commission, to the 3,300 selected physicians. The letter alerted physicians to the survey's arrival and emphasized the importance of their participation.

Surveys were mailed, accompanied by a detailed, personalized cover letter, which was customized for each specialty. This letter, also sent under Dr. Lee's signature, explained the Commission's project to develop relative values for surgical global services and the purpose of the survey in greater detail than had the advance letter. It provided history on the decision to implement a relative value scale and explained how this new system would differ from Medicare's system of payment for surgical global services under the customary, prevailing, and reasonable system.

All physicians who had not responded within three weeks were sent another survey instrument by certified mail with a reminder letter and a copy of the original cover letter. Personnel at Abt Associates' Survey Research Group (SRG) phone center also began to contact each nonrespondent by telephone. The purpose of the telephone call was to remind the physician or office staff member about the survey and its importance. The interviewer attempted to speak personally with physicians, but if they were not available, they talked to physicians' office managers or receptionists. Messages were not left with hospital switchboards or answering services or machines; instead, second phone calls were made later. This personal contact, coupled with the certified remailing of survey instruments, was a major outreach to the physician that underscored the seriousness of the survey and helped to distinguish it from the volume of mail that physicians receive.

The SRG callers also tried to verify whether physicians were eligible to participate in the survey. This information assisted in counting ineligibles in order to calculate overall response rates. SRG successfully reached 1,853 physicians or staff members with a reminder call.

Surveys were processed as they were returned. The survey director briefly reviewed each survey and assigned a status code, such as complete or ineligible. This status code, in conjunction with the survey's identification number, was entered into a tracking file. The tracking file provided continuous information concerning the number and status of returned surveys. Coders reviewed completed surveys to resolve any data problems (such as answers containing ranges or changed surgical settings) before the data were keypunched. This review was designed to ensure that the intended responses were correctly recorded during keypunching. Also, the page-by-page review of each survey allowed for unanticipated responses or patterns to be found and resolved. All surveys were entered and 100 percent key-verified. Once survey responses were entered, several edit checks were completed, and out-of-range values were identified and cross-checked using original survey instruments. An out-of-range value was defined as any value beyond the range of values expected for a particular response (parameters were developed by project staff). This included extremely high values, such as 2,000 for the question on how many times in the past year the physician had performed an operation.

## RESULTS

Completed surveys were received from 99 to 175 physicians in each specialty (Table 4-2). The overall response rate was 63 percent, with a high of 77 percent for podiatry and a low of 46 percent for obstetrics and gynecology. Item responses to questions were generally somewhat lower since the survey encouraged respondents not to review visit patterns for operations with which they were unfamiliar. In addition, physicians occasionally did not respond to all dimensions of particular visit pattern.

**Table 4-2. Response Rates and Number of Completed Surveys by Specialty**

| Specialty | Response Rate | Number of Completed Surveys |
|---|---|---|
| Cardiothoracic Surgery | 60% | 152 |
| Dermatology | 68 | 144 |
| General Surgery | 52 | 100 |
| Neurological Surgery | 58 | 119 |
| Obstetrics and Gynecology | 46 | 99 |
| Ophthalmology | 68 | 140 |
| Oral and Maxillofacial Surgery | 76 | 175 |
| Orthopaedic Surgery | 53 | 111 |
| Otolaryngology | 62 | 138 |
| Plastic Surgery | 63 | 137 |
| Podiatry | 77 | 168 |
| Urology | 62 | 132 |
| Vascular Surgery | 69 | 159 |
| **Total** | **63** | **1,774** |

Source: PPRC Survey of Physicians.

Sufficient survey data were received to evaluate the preliminary values assigned to most codes. Fewer than 50 responses were received for only 10 codes. For seven of these 10, fewer than 30 responses are available. The proportion of responses for which the survey median differs from the preliminary visit pattern value is about the same for the code/settings with fewer than 50 responses as for all surveyed codes.

### Survey Data Analysis

So that preliminary values could be compared, physician responses that agreed with the preliminary visit pattern were assigned the preliminary visit pattern value. Mean and median values were calculated from the survey results. Means were rounded to the nearest integer for the length of stay and number of visits dimensions, and to the nearest five-minute interval for the duration measures. Medians were generally integers or five-minute intervals and therefore usually did not require rounding.

To assess the degree of variation in physicians' responses, coefficients of variation (CVs) were calculated for each visit pattern dimension (Table 4-3 and Appendix I). CVs were nearly always less than 1.0 and were generally less than 0.5. Similarly, interquartile ranges were small, usually reflecting a range of one to two visits and one five-minute interval for the duration measures. Coefficients of variation for the recovery room duration dimension are larger because there were several codes for which 0 was a common response because it was the preassigned value. Omitting these codes, the percent of codes having CVs greater than 0.5 for recovery room duration is reduced from 35 percent to 17 percent.

**Table 4-3. Percent of Codes with Coefficients of Variation Greater Than 0.5**

| Dimension | Percentage |
|---|---|
| Length of Stay | 4% |
| Number of Postoperative Hospital Visits | 3 |
| Duration of Recovery Room Visits | 35 |
| Duration of Other Postoperative Hospital Visits | 2 |
| Number of Office Visits | 9 |
| Duration of Office Visits | 0 |

Source: PPRC Survey of Physicians.

### Comparison of Survey Data With Preliminary Visit Patterns

Physicians generally agreed with the preliminary visit patterns. Comparisons between survey results and preliminary values were made using survey medians. This summary statistic was chosen because differences between the means and the preliminary values were often attributable to a few extreme high or low values.[3] Respondents agreed with 87 to 97 percent of preliminary values for all dimensions except number of office visits provided within 90 days of surgery (Table 4-4).

**Table 4-4. Differences Between Physician Survey Medians and Preliminary Values**

| Visit Pattern Dimension | # Codes That Differ | % | SURVEY HIGHER # Codes | SURVEY HIGHER Average Magnitude | SURVEY LOWER # Codes | SURVEY LOWER Average Magnitude |
|---|---|---|---|---|---|---|
| Length of Stay | 12 | 8% | 6 | 1.5 | 6 | 1.0 |
| Number Postoperative Hospital Visits | 10 | 6 | 10 | 1.5 | 0 | — |
| Duration - Recovery Room Visits | 20 | 13 | 6 | 1.7 | 14 | 3.2 |
| Duration - Other Hospital Visits | 5 | 3 | 0 | — | 5 | 1.4 |
| Number Office Visits | 74 | 46 | 74 | 1.5 | 0 | — |
| Duration - Office Visits | 12 | 8 | 12 | 1.0 | 0 | — |

Source: PPRC Survey of Physicians.

Note: Magnitudes are expressed as days for length of stay, visits for all visit categories, and five-minute intervals for durations.

Differences between the preliminary visit patterns and the physician survey medians can be attributed to two factors, operating alone or together. First, the objective and specialty society data for particular codes may have been inadequate or inaccurate. Second, the decision rules used to develop summary statistics of specialty society and objective data may have been flawed. The latter factor suggests that the rules should be modified. The former suggests that for individual codes, data from the physician survey should be substituted for the value assigned to the visit dimension.

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[3] Since the visit patterns are intended to describe care provided to the typical patient undergoing each surgery, the influence of data points representing unusual cases or practice patterns was minimized by using the median values in the analysis. Moreover, survey means often differed from the preliminary value by less than one unit of measurement (or five in the case of the duration measures), and rounding often led to differences between the mean and the preliminary visit pattern value. It should also be noted that the means were not always greater than the medians; particularly for the duration dimensions, the means were frequently lower than the medians or preliminary survey values.

The Commission evaluated the methods used to assign preliminary visit patterns. This evaluation entailed modifying the decision rules used to develop the preliminary patterns and comparing these new visit patterns to survey medians according to measures of work and time.[4] For only 12 percent of codes did the work values between the two sets of visit patterns differ by more than 20 percent. In all cases where the differences exceeded 20 percent, the difference was primarily attributable to the number of office visits assigned under the two methods. In most of these cases, the objective data used to estimate the visit patterns were inadequate (estimates were drawn from one source or limited sample sizes from multiple sources). Given the similarity of the results from the two sets of visit patterns (modified preliminary and survey medians) and because most differences appeared to be due to deficiencies in the objective data, the survey medians were adopted as the final visit patterns (Appendix J).

The following analysis compares the survey medians for each dimension with the preliminary visit patterns.

**Length of Stay and Number of Hospital Visits.** Survey medians for length of stay differed from the preliminary value for only 8 percent of the 160 codes. In half of the cases survey medians were higher than the preliminary value, and in half they were lower. Except for two codes, the difference was only one day. For these codes, the survey medians were two and three days longer than the preliminary values (nine days versus seven days, and five days versus two days). These findings suggest that the preliminary length of stay estimates were widely accepted and, when they were not, physicians raised the preliminary value as often as they lowered it.

Respondents agreed with 94 percent of the preliminary assignments for the number of postoperative hospital visits and, in all cases, the number was increased. In seven of the 10 cases where the survey median was higher than the preliminary value, respondents also raised the length of stay. This suggests that disagreement was based solely on number of hospital days, not on number of visits per day.

**Duration of Nonrecovery Room Hospital Visits.** Median survey responses agreed with 97 percent of preliminary durations for these visits. All cases of disagreement were for urology services; in each case, the survey data indicated a shorter duration than was assigned. Visit durations submitted by the American Urological Association were deflated by 0.9 based on a comparison with AMA Socioeconomic Monitoring System (SMS) data (discussed in Chapter 3). These survey results indicate that perhaps a larger deflation factor should have been applied to this specialty society's data.

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[4] See Chapter 5 for a description of the methods used to develop work values.

**Duration of Recovery Room Visits.** The survey medians agreed with 88 percent of the assigned recovery room durations. Of the 20 codes where there was disagreement, six were assigned longer durations by survey respondents and 14, shorter durations.

Recovery room durations were based solely on specialty society data because no objective sources were available, as described in Chapter 3. All six codes that were assigned longer durations by respondents were surveyed in an outpatient setting. In all cases, the preliminary recovery room duration was zero because specialty society data did not indicate a recovery room visit. Disagreement, therefore, resulted from survey respondents indicating that a recovery room visit was necessary, rather than indicating an adjustment to a preassigned duration of an existing visit.

A few specialties account for the majority of the 14 codes where the survey median implied a shorter duration for the recovery room visit. Five of the discrepant codes are urology operations. The data submitted to the Commission by the American Urological Association contained recovery room durations of either 45 or 60 minutes. Using the hospital visit deflator of 0.9, the 60-minute visits were all deflated to 54 (rounded to 55) minutes, except in cases where another specialty society had submitted shorter duration data for the same code. Of the 10 codes on the urology survey with a preliminary recovery room visit duration of 55 minutes, the survey median for four was lower, ranging from 30 to 50 minutes. In the fifth case, the initial value was lower because the 55-minute urology duration was averaged with a much lower estimate from another specialty. In the remaining five cases, the survey mean was lower than the preliminary value, ranging from 40 to 45 minutes, and 31 percent to 48 percent of respondents thought the value should be lower than 55 minutes. It appears, therefore, that a ceiling duration of 40 minutes would have led to more agreement for recovery room duration than resulted from using the deflator.

Four codes where the survey median implied a shorter duration represent vascular operations. The Society of Vascular Surgery provided varying estimates of the duration of the typical recovery room visit. Its data were not deflated to determine preliminary estimates. In all four cases where discrepancies existed between the preliminary and survey values, the initial value was quite long, 45 minutes or more. Codes where no discrepancy exists generally were assigned shorter recovery room visits. Therefore, once again, it appears that rather than deflating the data for all codes across-the-board, it might have been more appropriate to establish a ceiling of 45 minutes.

For three of the remaining codes, preliminary recovery room durations were based, in part, on data from the American Society of Plastic and Reconstructive Surgeons (ASPRS). However, only one of these codes was included on the plastic surgery survey of physicians. The ASPRS assigned 45 minutes to all recovery room visits, while in most instances other specialty societies assigned much shorter durations to the same codes. Therefore, based on other specialty society data, it appears that the ASPRS durations may have been overestimated and should have been capped at 30 minutes.

**Postoperative Office Visits.** Survey medians agreed with only 54 percent of the preliminary assignments for this dimension. In all cases where the survey median differed from the preliminary assignment, the survey median response implied more visits within 90 days. Of the 74 codes showing a difference, 62 percent differed by only one visit and the average difference was 1.5 visits. An additional 27 percent differed by two visits and 11 percent, by three visits. The greatest difference was three visits. In 76 percent of the instances where the number of office visits differed by one visit, the preliminary visit pattern specified one or two office visits in total, making the proportional increase of a single visit substantial.

It appears that for the majority of codes associated with differences of greater than one visit, the objective data on which the initial value was based were inadequate. Of the 28 codes where the survey medians indicated a difference of more than one visit, 20 preliminary assignments were based either on a single source of objective data or data from closely related codes.[5] In six of the remaining seven codes, at least one objective data source had a sample size of less than 30.

No pattern was evident for codes with a discrepancy between the preliminary number of office visits and survey median of a single visit. The codes are distributed across specialties and settings. As noted above, about 76 percent of these codes were assigned a low number of visits (one or two). However, numerous other codes were assigned very few visits and survey respondents agreed with the preliminary assignment. Among the eight procedures for which the survey medians differed from the preliminary assignment by three visits are three foot procedures and a mixture of dermatology, general surgery, and ophthalmology services.

To test whether the average of the medians was the best summary measure to use in developing preliminary estimates of the number of office visits, survey median responses were compared with the average of means and average of third quartiles of the objective data. The average of mean values would result in a few more, but generally smaller deviations from survey medians than the average of medians. The average of the means would also give equal weight to the least and most complicated patients whereas the average of the medians minimizes the effect of outliers. Third quartiles would also result in more, but smaller, deviations from survey medians than the average of medians. However, they would overcorrect for the objective data deficiencies in certain instances.

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[5] In a few instances where there were no objective data for a particular dimension, preliminary values were assigned based on data from a closely related code having the same first three or four digits in ICD-9 codes.

**Duration of Postoperative Office Visits.** Survey medians agreed with 93 percent of preliminary durations for these visits. The survey results suggested longer office visit durations (by one five-minute interval) for all codes where the survey median differed from the assigned duration. In each case, the code had been assigned a short (five- or ten-minute) duration in the preliminary visit pattern. To evaluate whether five minutes is an unreasonable duration for any postoperative office visit, data for all 160 codes were examined. Of the 160 codes, nine were assigned a five-minute average office visit duration. Of these nine, survey medians suggested 10-minute durations for five, and for two additional codes, the survey mean was 10 minutes. These results suggest that data from the National Ambulatory Medical Care Survey (NAMCS), used to deflate some specialty societies' estimates, may have overdeflated office visit durations for certain codes. On the other hand, physicians may overstate the duration of brief office visits because they perceive an abstract five-minute time period to be too short for any visit.

### Potential for Gaming

In conducting any survey where the policy implications of the results are evident to respondents, there is concern about the potential for gaming. The results of this survey, however, suggest that gaming was not an important factor in explaining the results. As Table 4-4 shows, except for the number of office visit dimension, there was no systematic increase in the survey data over the preliminary values. The median response for other dimensions exceeded the preliminary value in less than 10 percent of the codes; in several cases, the median was lower.

### Incorporation of Multiple Specialty Society Responses

Twenty-one inpatient codes were included in multiple specialties' surveys and there were 41 overlap codes in total (Appendix K). Final visit patterns reflect pooled data for codes for which several societies responded, with each specialty weighted implicitly in proportion to the number of responses it supplied to the total. This approach is appropriate if these numbers reflect the underlying distribution of operation that were actually performed. Although the numbers of responses from the 13 surveyed specialties varied, these variations -- especially when related to a particular operation -- likely reflect differences in how often the specialists perform the operation. Moreover, a simple unweighted average of the different specialties' medians nearly always produces a number identical to the pooled median. In general, median and mean responses varied by one to two units (five-minute intervals for durations and visits for hospital and office sites).

## NONRESPONSE ANALYSIS

The characteristics of nonrespondents were compared with those of survey respondents for geographic location, age, gender, practice setting, and board certification for the 11 specialties drawn from the AMA Masterfile. In general, the two groups were very similar.

No differences were evident for the geographic distribution, gender, and practice setting. There was a slightly larger percentage of nonrespondents over the age of 65 (7 percent versus five percent). It is possible that some nonrespondents were retired and therefore ineligible for the survey, but did not return the uncompleted survey instrument to indicate their ineligibility.

Ninety-eight percent of respondents were board-certified in some specialty compared with 79 percent of nonrespondents. Eighty-eight percent of respondents were certified in the specialty identified on the survey, compared to 77 percent of the nonrespondents.

## RESPONDENT ANALYSIS

Analysis comparing survey respondents to the physician population as a whole was conducted using data from the AMA Masterfile and Part III of the survey. On average, 86 percent of participating physicians indicated board certification (Table 4-5).[6] The percentage of board-certified physicians responding to the survey was greater for every specialty than for physicians as a whole. This finding could result, in part, from the Commission's eligibility criteria that were designed to screen out residents and fellows. Of the physicians who were not board-certified in any specialty, 8 percent indicated that they have completed specialty training. The remaining 6 percent of respondents had neither completed specialty training nor obtained board certification.

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[6] This number is slightly different than the 90 percent reported above in the discussion of nonrespondents because it includes oral surgery and podiatry, which the former number does not.

**Table 4-5. Percent of Survey Respondents Who Are Board Certified Compared to Physician Population**

| Specialty | Percent Board Certified[a]<br>PPRC Physician Survey | <br>AMA Masterfile[b] |
|---|---|---|
| Cardiothoracic Surgery | 96% | 89% |
| Dermatology | 94 | 79 |
| General Surgery | 85 | 58 |
| Neurological Surgery | 93 | 61 |
| Obstetrics/Gynecology | 79 | 61 |
| Ophthalmology | 91 | 74 |
| Oral and Maxillofacial Surgery | 86 | N/A |
| Orthopaedic Surgery | 87 | 67 |
| Otolaryngology | 90 | 72 |
| Plastic Surgery | 87 | 75 |
| Podiatry | 53 | N/A |
| Urology | 86 | 73 |
| Vascular Surgery | 96 | N/A |
| **Total** | **86** | **66** |

Source: American Medical Association Masterfile and PPRC Survey of Physicians.

Note: a) Percent of respondents who are board certified in at least one specialty.

b) The AMA percentages include residents, fellows, and federal physicians who were screened out of the PPRC survey. AMA percentages are based on AMA Masterfile (January 1989).

N/A indicates that there is not a specialty designation in the AMA Masterfile.

Approximately 94 percent of responding physicians perform surgery in hospital settings with some specialties, such a dermatology and podiatry, performing much of their surgery in outpatient settings. Most respondents (35 percent) perform surgery in hospitals having 100 to 300 beds or 301 to 500 beds (30 percent) (Table 4-6).

Table 4-6. Distribution of Site of Practice for Respondents to Physician Survey

| | Number of Beds in Primary Surgery Hospital | | | | |
|---|---|---|---|---|---|
| **Specialty** | **<100** | **100-300** | **301-500** | **>500** | **N/A** |
| Cardiothoracic Surgery | 0% | 23% | 41% | 35% | 1% |
| Dermatology | 10 | 22 | 10 | 10 | 47 |
| General Surgery | 15 | 41 | 25 | 16 | 3 |
| Neurological Surgery | 1 | 34 | 34 | 31 | 0 |
| Obstetrics/Gynecology | 7 | 39 | 36 | 14 | 3 |
| Ophthalmology | 19 | 39 | 30 | 11 | 2 |
| Oral and Maxillofacial Surgery | 3 | 33 | 30 | 35 | 0 |
| Orthopaedic Surgery | 8 | 46 | 32 | 14 | 1 |
| Otolaryngology | 5 | 42 | 35 | 17 | 1 |
| Plastic Surgery | 4 | 35 | 39 | 21 | 1 |
| Podiatry | 22 | 46 | 13 | 5 | 14 |
| Urology | 8 | 42 | 31 | 17 | 2 |
| Vascular Surgery | 3 | 25 | 40 | 32 | 1 |
| **Total** | **8** | **35** | **30** | **20** | **6** |

Source: PPRC Survey of Physicians.

Note: N/A indicates no response was provided.

The plurality of responding physicians (45 percent) are in solo practice (Table 4-7). Of this group, dermatologists, plastic surgeons, and podiatrists reported the highest percentages of solo practices. Oral surgeons reported the lowest with 22 percent. Single specialty group practice was reported by 35 percent of respondents. Orthopaedic and oral surgeons both indicated that single specialty group practice was their most common form of practice.

**Table 4-7. Distribution of Mode of Practice for Respondents to Physician Survey**

| | Primary Mode of Practice | | | | | |
|---|---|---|---|---|---|---|
| Specialty | Solo | Single Specialty Group | Multi-Specialty Group | University | HMO | Other |
| Cardiothoracic Surgery | 28% | 44% | 13% | 14% | 2% | 0% |
| Dermatology | 68 | 19 | 7 | 1 | 2 | 2 |
| General Surgery | 46 | 23 | 21 | 3 | 2 | 5 |
| Neurological Surgery | 39 | 41 | 9 | 10 | 1 | 0 |
| Obstetrics/Gynecology | 37 | 43 | 11 | 2 | 3 | 3 |
| Ophthalmology | 56 | 33 | 6 | 3 | 1 | 1 |
| Oral and Maxillofacial Surgery | 22 | 51 | 3 | 20 | 1 | 3 |
| Orthopaedic Surgery | 33 | 51 | 7 | 3 | 4 | 2 |
| Otolaryngology | 42 | 38 | 11 | 5 | 2 | 2 |
| Plastic Surgery | 67 | 20 | 4 | 7 | 0 | 2 |
| Podiatry | 67 | 18 | 7 | 1 | 1 | 7 |
| Urology | 44 | 36 | 9 | 5 | 1 | 5 |
| Vascular Surgery | 31 | 35 | 13 | 15 | 2 | 4 |
| **Total** | 45 | 35 | 9 | 7 | 1 | 3 |

Source: PPRC Survey of Physicians.

Fee-for-service was clearly the most common form of compensation for responding physicians (Table 4-8). Eighty percent indicated that fee-for-service was their major source of compensation while another 7 percent indicated that a combination of fee-for-service and salary comprised their major source of compensation. Responses were relatively consistent across the different specialties for this question.

**Effect of Performance Frequency.** An analysis of whether frequency of performance affected physicians' responses to the survey was conducted. The distribution of respondents' performance frequency varied substantially across operations, with the mean ranging from less than one for a repair of entropion with suture (CPT 67914) to over 160 for excisions of benign lesions (CPT 11402 and 11441). Similarly, the maximum frequencies ranged from two to more than 1,000 for the same operations, respectively. Therefore, respondents were divided into two groups depending on whether they had performed more or less than the 25th percentile of the frequency distribution during the last 12 months. This approach maintained a sufficient sample size in each group, allowing the definition of operation-specific experience to be based on the underlying frequency distributions.

**Table 4-8. Distribution of Physicians' Source of Compensation, PPRC Physician Survey**

| Specialty | Source of Majority of Compensation<br>Fee for Service | Salary* | Combination Fee and Salary | Other |
|---|---|---|---|---|
| Cardiothoracic Surgery | 70% | 22% | 7% | 1% |
| Dermatology | 88 | 6 | 6 | 1 |
| General Surgery | 79 | 10 | 6 | 5 |
| Neurological Surgery | 83 | 10 | 7 | 1 |
| Obstetrics/Gynecology | 79 | 15 | 5 | 1 |
| Ophthalmology | 88 | 6 | 4 | 2 |
| Oral and Maxillofacial Surgery | 68 | 11 | 20 | 2 |
| Orthopaedic Surgery | 87 | 9 | 4 | 0 |
| Otolaryngology | 79 | 12 | 6 | 2 |
| Plastic Surgery | 90 | 6 | 4 | 1 |
| Podiatry | 83 | 7 | 5 | 5 |
| Urology | 82 | 7 | 5 | 6 |
| Vascular Surgery | 77 | 14 | 9 | 1 |
| **Total** | **80** | **10** | **7** | **2** |

Source: PPRC Survey of Physicians.

Note: *Includes capitation.

Statistical tests revealed that the degree of experience, when measured as below or above the first quartile, did not affect responses in any systematic manner. T-tests of the difference in mean response were insignificant in the majority of cases across all dimensions. For cases where a significant difference was revealed, the effect of experience was unsystematic -- in some cases it resulted in higher values, while in others the visit pattern value was lower. Because of the apparent lack of effect of experience, all respondents were kept in the sample to calculate the final survey medians.

Since respondents were asked not to respond to questions about operations which they did not feel competent to assess, poorly informed respondents were probably deleted from the sample by self-selection. As noted above, for several operations, the item response was considerably less than the total number of respondents to the specialty questionnaire. These tended to be operations for which either total expenditures are low, or the specialty is not the primary one performing the operation.

Respondents who stated that they had not performed the operation during the last 12 months were also analyzed separately (Table 4-9). There were 25 codes (15 percent) for which at least 10 respondents were nonperformers. In 27 (17 percent) of the surveyed codes, more than 10 percent of respondents were nonperformers. Often these were codes with lower response rates in general, indicating that the operations are not performed frequently by most surgeons. Of the 27 codes, eight had fewer than 30 respondents; 12 had fewer than 100 respondents. The table shows for each dimension the percent of all codes surveyed where the nonperformers provided a different answer, as measured by differences in the mean and/or medians, and the percent for which the difference in mean responses was statistically significant at the .05 level as measured by a t-statistic.

**Table 4-9. Differences in Responses Between Performers and Nonperformers[a]**

| Dimension | Percent of Codes with Differences[b] | Percent of Codes with Significant Differences[c] |
|---|---|---|
| Length of Stay | 11% | 2% |
| Number of Hospital Visits | 12 | 4 |
| Recovery Room Duration | 11 | 4 |
| Other Hospital Visit Duration | 3 | 1 |
| Number of Office Visits | 16 | 5 |
| Office Visit Duration | 4 | 2 |

Notes: [a] Respondents who had not performed the operation during the preceding 12 months were classified as nonperformers.

[b] Differences between the mean and/or median responses of performers and nonperformers.

[c] Differences between the mean responses of performers and nonperformers significant at the 0.5 level.

Most of the differences between performers and nonperformers are not statistically significant. Moreover, the differences showed no definite pattern. The nonperformers provided higher and lower estimates of the number of days, visits, or minutes required in approximately equivalent proportions for each dimension. In the majority of cases, the differences reflect a single day, visit, or five-minute time interval. Given the relatively small number of nonperformers and the lack of a systematic pattern of differences in their responses, these responses were maintained in the database.

## CONCLUSION

The physician survey was an essential step in the development of the Commission's final visit patterns. In general, for all but one dimension, the survey responses confirmed the preliminary visit patterns. For the number of office visits dimension, the adopted survey medians raise the number of postoperative office visits to a level that should compensate for any underreporting of these visits in the objective data.

# CHAPTER 5

# ANALYSIS OF PRE- AND POSTOPERATIVE SURGICAL VISIT PATTERNS

The preceding chapter described how visit patterns were developed for 160 surgical services based on analyses of surgical specialty society data, objective data, and the results of a national survey of physicians. These 160 codes account for 62 percent of Medicare spending for surgical global services. The Commission has a high degree of confidence in the visit patterns established through this research because they are based on multiple sources of data that demonstrate considerable agreement with one another.

This chapter summarizes a variety of analyses. First, the components of pre- and postoperative care encompassed by the Commission's visit patterns are described and quantified in terms of their average duration. Using the number of visits and the average duration of each type of visit, summary statistics for the percent of time spent by physicians in each component are presented. Next, data from the Hsiao study are compared with data from the Commission's study and the Abt Associates' survey of cardiothoracic and vascular surgery (Hsiao and others 1990) (Noether and others 1990).

This chapter also discusses the decisions and refinements that the Commission believes should precede the assignment of final relative work values (RWVs) for surgical global services. Interim RWVs are assigned to the Commission's visit patterns and ratios of pre- and postoperative work to total work are presented. Methods for extrapolating the 160 visit patterns to a larger set of surgical services accounting for up to 100 percent of surgical global expenditures are discussed.

## THE COMMISSION'S VISIT PATTERNS: SUMMARY AND ANALYSIS

Final visit patterns are presented in Appendix J. Each dimension of the visit patterns (such as number of postoperative office visits or duration of postoperative office visits) was summarized for the 160 codes according to site of service (Table 5-1). For inpatient operations, physicians, on average, provide two preoperative hospital visits. Initial visits are, on average, 30 minutes long while subsequent preoperative visits average 13 minutes long. On average, five postoperative hospital visits lasting 16 minutes each and three postoperative office visits lasting 14 minutes each are provided to patients undergoing inpatient operations. The average visit pattern for outpatient operations includes one preoperative hospital visit lasting 17 minutes, and 3 postoperative office visits lasting 11 minutes. Inpatient and outpatient operations are associated with recovery room visits lasting 23 minutes and 14 minutes respectively.

**Table 5-1. Summary of Visit Patterns**

| | ALL OPERATIONS<br>Mean<br>(SD) | INPATIENT OPERATIONS<br>Mean<br>(SD) | OUTPATIENT OPERATIONS<br>Mean<br>(SD) |
|---|---|---|---|
| **Preoperative Visits** | | | |
| Number | 1.4<br>(.50) | 1.6<br>(.52) | 1.0<br>(0) |
| Duration | | | |
| Initial | 23.7<br>(9.1) | 29.1<br>(7.6) | 17.0<br>(5.4) |
| Subsequent | 12.5<br>(3.2) | 12.5<br>(3.2) | — |
| **Postoperative Hospital Visits (Non Recovery Room)** | | | |
| Number | 5.4<br>(3.3) | 5.4<br>(3.3) | — |
| Duration (minutes) | 15.7<br>(4.7) | 15.7<br>(4.7) | — |
| **Recovery Room Visits** | | | |
| Duration (minutes) | 20.0<br>(12.8) | 22.6<br>(13.3) | 14.4<br>(9.4) |
| **Postoperative Office Visits** | | | |
| Number | 3.1<br>(1.3) | 3.0<br>(1.2) | 3.2<br>(1.3) |
| Duration (minutes) | 12.6<br>(4.5) | 13.5<br>(4.5) | 11.4<br>(4.2) |

Source: PPRC Survey of Physician/Final Visit Patterns.

The range in these visit patterns varies in size according to dimension. A maximum of two preoperative visits (one visit the day before surgery and one visit the day of surgery) were assigned to inpatient operations while a maximum of one preoperative visit was assigned to outpatient operations. The duration of initial preoperative visits ranges from ten to 35 minutes while subsequent preoperative visits range from five to 15 minutes. Recovery room visits range from five to 55 minutes long. From one to 15 postoperative hospital visits are provided, reflecting large differences in length of stay. These visits were assigned durations ranging from 10 to 30 minutes. One to seven office visits were assigned lasting from five to 40 minutes.

### Summary of Time Components

The times that surgeons spend preoperatively and postoperatively providing visit services within the Commission's global service timeframe are summarized according to three perioperative time periods: preoperative, postoperative hospital (including recovery room), and postoperative office (Table 5-2). The times shown on the table are the product of the number of visits and the average duration of the visit for each of the three time components.

Preoperative time consists of the time spent by the principal surgeon evaluating the patient the day before and the day of surgery. This time excludes the surgical consultation where the decision to perform surgery is made. Preoperative care comprises 21 percent of total pre/post time for inpatient operations with an average duration of 37 minutes. For outpatient operations, preoperative care accounts for 31 percent of total pre/post time and the average total duration is 17 minutes.

Across all operations, hospital and office postoperative visits comprise about 74 percent of total pre/post time, on average. Postoperative hospital time includes all visits provided from when the patient leaves the operating room, including the recovery room visit, until discharge. Postoperative office visit time includes all visits provided after discharge until 90 days post surgery. Not surprisingly, postoperative hospital visits account for a greater proportion of total pre/post time for inpatient operations (55 percent) compared to outpatient procedures (13 percent). Likewise, postoperative office visits comprise a greater percentage of pre/post time for outpatient procedures (57 percent) than inpatient (24 percent).

## COMPARISON OF RESULTS FROM COMMISSION AND PHASE II HSIAO STUDIES

Because final RWVs are not available for the components of surgical global services at this time, direct comparison of RWVs produced using the Commission's visit patterns and patterns developed by Hsiao was not possible. Time data from the two studies was, however, compared. The following sections present the results of this analysis, highlighting the differences between the two studies' methods.

### Results of Comparison

Hsiao Phase II estimates of pre/post time for surgical global services are 14 percent higher, on average, than the Commission's estimates (Table 5-3). Times from the Hsiao study are 11 percent higher, on average, for preoperative hospital visits; 27 percent higher, on average, for postoperative hospital visits; and 11 percent higher, on average, for postoperative office visits.

## Table 5-2. Components of Pre- and Postoperative Care

| | AVERAGE DURATION OF THE COMPONENTS OF PRE/POST CARE[a] | | |
|---|---|---|---|
| | Minutes (SD) | | |
| Component | All Operations | Inpatient Operations | Outpatient Operations |
| Total Preoperative Care<br>N = 158 | 28.3<br>(13.9) | 37.4<br>(12.8) | 17.0<br>(5.3) |
| Total Postoperative Hospital Care<br>N = 130 | 78.0<br>(69.2) | 106.0<br>(65.8) | 15.5<br>(12.3) |
| Total Postoperative Office Care<br>N = 160 | 39.7<br>(24.7) | 41.5<br>(26.8) | 37.3<br>(21.0) |
| Total Perioperative Care<br>(N = 160) | 131.0<br>(88.0) | 183.8<br>(80.8) | 63.1<br>(26.3) |

| | Ratios of Components of Pre/Post Time to Total Pre/Post Time[b] (SD) | | |
|---|---|---|---|
| Component | All Operations | Inpatient Operations | Outpatient Operations |
| Preoperative Time | .26<br>(.12) | .21<br>(.08) | .31<br>(.15) |
| Postoperative Time | .74<br>(.14) | .79<br>(.08) | .69<br>(.15) |
| Postoperative Hospital Time | .45<br>(.20) | .55<br>(.14) | .13<br>(.14) |
| Postoperative Office Time | .38<br>(.21) | .24<br>(.12) | .57<br>(.16) |

Source: PPRC Survey of Physicians/Final Visit Patterns.

Note: [a] Average durations represent face-to-face time for office visits and floor time for hospital visits.

[b] Ratios represent the mean of ratios for each component/operation combination.

## Table 5-3. Pre/Post Time in the PPRC Global Service Project and Hsiao Study

|  |  | Ratio of PPRC Time to Hsiao Time |  |  |  |
|---|---|---|---|---|---|
| Specialty | N[a] | Pre-op Visit(s) (SD) | Post-op Hospital Visits (SD) | Post-op Office Visits (SD) | All Visits (SD) |
| Dermatology | 6 | 1.44[b]<br>(.46) | N/A | 1.40<br>(.40) | 1.49<br>(.39) |
| General Surgery | 20 | .99<br>(.43) | 1.01<br>(.54) | .86<br>(.50) | .96<br>(.34) |
| Neurosurgery | 8 | .77<br>(.28) | .79<br>(.18) | .74<br>(.10) | .76<br>(.16) |
| Obstetrics & Gynecology | 4 | .54<br>(.06) | .62<br>(.16) | 1.16<br>(.35) | .69<br>(.08) |
| Ophthalmology | 14 | .67<br>(.45) | .69<br>(.44) | 1.23<br>(.35) | .97<br>(.33) |
| Oral and Maxillofacial Surgery | 5 | .51<br>(.21) | .59<br>(.04) | .88<br>(.24) | .64<br>(.05) |
| Orthopedic Surgery | 18 | 1.02<br>(.29) | .67<br>(.33) | .63<br>(.22) | .73<br>(.11) |
| Otolaryngology | 4 | .80<br>(.17) | 1.00<br>(.26) | 1.03<br>(.86) | .91<br>(.24) |
| Plastic Surgery | 10 | .87<br>(.32) | .27<br>(.40) | .65<br>(.18) | .56<br>(.20) |
| Thoracic and Vascular Surgery | 7 | .81<br>(.25) | .95<br>(.19) | .69<br>(.44) | .90<br>(.14) |
| Urology | 5 | 1.15<br>(.51) | 1.60<br>(.57) | 1.16<br>(.46) | 1.31<br>(.36) |
| All Specialties | 101 | .90<br>(.42) | .79<br>(.49) | .90<br>(.46) | .88<br>(.34) |

Source: PPRC Surgical Global Service Project and Phase II of the Hsiao Study.

Note: [a] Number of operations in each specialty that were surveyed in both the PPRC Surgical Global Service Project and the Hsiao Study.

[b] This ratio applies to the sum of preoperative and immediate postoperative time.

There is substantial variation in the ratios, however, across specialties and within specialties. While Hsiao's aggregate pre/post times and component-specific times exceed the Commission's times for most specialties, pre/post times for two specialties, dermatology and urology, are lower in the Hsiao study. Within specialty variation was sometimes considerable. For example, ratios of Commission pre/post times to Hsiao pre/post times for general surgery ranged from 0.57 to 1.69.

Analysis of the differences observed across the three components of perioperative care for the 11 specialties reveals few patterns. For five specialties, the Commission's times for postoperative office visits are higher than those reported by Hsiao. For dermatology, the Commission times are 40 percent higher than Hsiao's times. This contrasts with orthopaedic surgery to which Hsiao assigned times that are 59 percent higher, on average, than the Commission's times.

Pre/post times for inpatient and outpatient operations were compared separately (Table 5-4). Analysis of data for 83 operations revealed little overall difference between settings in the degree to which Hsiao estimates of total perioperative times exceed the Commission times. For inpatient surgeries, Hsiao estimates for all components of pre/post time were 14 percent higher, on average, than the Commission's estimates. For outpatient surgeries, the Hsiao estimates were, on average, 16 percent higher.

**Table 5-4. Pre/Post Time for Inpatient and Outpatient Services**

| | | Ratio of PPRC Time to Hsiao Time | | | |
|---|---|---|---|---|---|
| | N | Preoperative Hospital Visits (SD) | Postoperative Hospital Visits (SD) | Postoperative Office Visits (SD) | All Visits (SD) |
| Inpatient Services | 51 | .90<br>(.34) | .92<br>(.39) | .83<br>(.48) | .88<br>(.30) |
| Outpatient Services | 32 | .86<br>(.46) | .46<br>(.42) | 1.05<br>(.49) | .86<br>(.38) |

Source: PPRC Surgical Global Service Project and Phase II of the Hsiao Study.

Note: Analysis includes only the services that were surveyed by both Hsiao and the Commission in the same setting.

Of note is that Hsiao estimates of postoperative hospital time for outpatient operations are, on average, more than two-fold that of the Commission. One reason for this difference may be that the Commission's postoperative hospital times for outpatient operations account for recovery room visits only. For several outpatient operations, the Commission did not assign a recovery room visit. Physicians responding to the Commission's national survey confirmed more than 90 percent of the recovery room durations that were assigned. Hsiao's survey, on the other hand, does not specifically ask about recovery room visits for outpatient operations. Rather, survey questions vary according to the site of service (such as office or ambulatory surgical center) and ask for time estimates for several non face-to-face activities, such as communicating with the patient's family, ordering follow-up tests, and communicating with other practitioners. Among the 32 outpatient operations compared, nine were not assigned any hospital postoperative time by the Commission (no recovery room visit assigned) and as much as 32 minutes of time by Hsiao.[1]

**Differences in Methodologies**

In the Hsiao study, pre/post times were assigned to surgical global services using one of three methods (or a combination of methods): national survey, small group process, and regression. Small panels of physicians (five to six physicians) called technical consulting groups (TCGs) were nominated by specialty societies. The TCGs estimated postoperative office time for 111 vignettes. In addition, 25 physicians on a general surgery expert panel estimated the time involved in providing pre- and postoperative hospital and office visits for 32 vignettes. Finally, Hsiao developed regression models to predict pre/post times for several other codes that were either not surveyed or not included among those examined by panels of physicians.[2]

To understand the impact different methods have on results, the Commission compared its estimates of the number and average duration of postoperative office visits with those assigned through the Hsiao TCG and national survey processes (Table 5-5). For the number of visits, Hsiao's national survey and TCG estimates are, on average, 14 and 18 percent higher respectively than the Commission's estimates. For the duration of postoperative office visits, the Commission's estimates are 19 percent higher than those from Hsiao's national survey. However, Hsiao's TCG estimates are 20 percent higher than the Commission's.

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[1] Hsiao's survey questions probably measure total postoperative hospital time: face-to-face, or encounter time, and non face-to-face time for outpatient surgeries, as opposed to face-to-face time measured by the Commission. The Commission recommends that relative values for evaluation and management services be developed using work per unit of encounter time, although payment for these services be based on total time. Analysis of data from the Commission's Visit Survey demonstrates that encounter time is as good a predictor of total work as total time, but it has several advantages over total time (PPRC 1991c).

[2] Within each setting (inpatient or ambulatory), separate models were used to predict preoperative time, postoperative hospital time, and postoperative office time. The regressions were based on estimates of time from physicians included in the Phases I and II national surveys, the general surgery expert panel, and the TCGs. Regressions predicting postoperative hospital time were also based on data on length of stay from the Commission on Professional and Hospital Activities. Estimates of pre/post time for surgical global services surveyed in Phase I were adjusted to make them compatible with those surveyed in Phase II. Estimates of pre- and postoperative hospital time from Phase I were used when available. Phase II regressions were used to assign pre- and postoperative hospital time to services that were not surveyed for these values in Phase I. Phase II regressions were used to assign postoperative office visit time to all Phase I surgical global services.

**Table 5-5.** **Mean Ratios of PPRC Data to Hsiao Data for Number and Duration of Postoperative Office Visits**

| | Number of Visits | | Average Duration | |
|---|---|---|---|---|
| Specialty | TCG (N) | Survey (N) | TCG (N) | Survey (N) |
| Plastic Surgery | 0.78<br>(6) | 0.71<br>(3) | 0.75<br>(7) | 0.82<br>(2) |
| Ophthalmology | — | 0.96<br>(10) | — | 1.44<br>(10) |
| Oral and Maxillofacial Surgery | 0.76<br>(4) | — | 1<br>(4) | — |
| Orthopedic Surgery | 0.79<br>(11) | 0.94<br>(3) | 0.71<br>(11) | 0.88<br>(3) |
| Otolaryngology | 0.57<br>(2) | 0<br>(1) | 0.8<br>(2) | 1.37<br>(1) |
| Neurosurgery | 0.81<br>(7) | 0.65<br>(1) | 0.91<br>(7) | 1.25<br>(1) |
| Obstetrics/Gynecology | 1.13<br>(4) | 1.25<br>(1) | 0.79<br>(4) | 1.19<br>(1) |
| Urology | 1.19<br>(4) | 0.94<br>(1) | 1.01<br>(4) | 1.01<br>(1) |
| Thoracic Surgery | 1.08<br>(6) | — | 0.76<br>(6) | — |
| General Surgery | 0.86<br>(16) | 0.81<br>(10) | 0.88<br>(7) | 1.08<br>(8) |
| N | 60 | 30 | 52 | 27 |
| Mean | 0.88 | .85 | 0.83 | 1.19 |
| Standard Deviation | 0.31 | .30 | 0.24 | 0.42 |
| Median | 0.83 | .86 | 0.84 | 1.09 |

Source: PPRC Surgical Global Service Project and Phase II of the Hsiao study.

Higher estimates for both number and duration of postoperative visits from the TCGs may reflect the limitations of using small group process to develop estimates of actual physician practice. In its study, the Commission compared the number and duration of office visits reported by specialty societies, using small group process, with the number and duration indicated by objective data. The Commission found that specialty societies consistently estimated higher numbers of office visits than were observed in the objective data. Almost 80 percent of deviations from objective data for the number of office visit were due to higher, rather than lower, specialty society estimates (Table 3-2).

The Commission attributed some of this deviation to physicians estimating ideal, rather than actual, practice. On the other hand, the Commission recognized certain limitations in the objective data for the number of office visits.[3] For this dimension, in particular, the Commission's national survey was viewed as an essential step to check the reasonableness of the preliminary assignments.

Some differences between Hsiao national survey data and Commission data may be explained by error that was introduced when physicians responded to hypothetical vignettes in the Hsiao survey. Some codes were surveyed with vignettes that were not representative of the code's typical service (i.e. the vignette described a service that was at the high or low range of work for the code). Others were surveyed with ambiguous vignettes that may have been interpreted differently by physicians in the survey. In certain cases, this could have introduced bias as well as measurement error into estimates of time.

Another reason why Hsiao survey data and Commission data diverge on the number of office visits may be the absence of a clear postoperative timeframe in the Hsiao study. Physicians were asked to estimate the number of office visits provided as follow-up to surgery without specifying a timeframe, such as 90 days. Lack of a timeframe, coupled with the influence that local surgical global policies may have on physicians' responses, could explain some of the differences between the two studies' results for this dimension.

Finally, Hsiao's use of regressions to estimate pre/post time may also explain some of the differences in results from the two studies. Hsiao reports that the regressions used to predict pre/post time had predictive errors of 14 percent (preoperative time) to 28 percent (postoperative office time).

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[3] The sample size for many codes was small and the Medicare data set, which was one of three data sets used, was limited by the effects of surgical global payment policies (see Chapter 2).

The Commission understands that preliminary times from Phase III of the Hsiao study are lower, on average, than the times presented in the Phase II final report.[4] If true, Hsiao Phase III times may be closer, on average, to the Commission times developed using specialty society, objective, and national survey data.

## COMPARISON OF RESULTS FROM ABT SURVEY AND HSIAO PHASE II

The Society of Thoracic Surgeons and five other cardiovascular specialty societies contracted with Abt Associates Inc. to conduct a resurvey of physicians in the specialties of cardiac, thoracic, and vascular surgery using a model similar to that used by Hsiao (Noether 1990).[5] Telephone interviews were held with 244 surgeons to collect estimates of work and time for several operations. Using separate surveys for each of the three subspecialties, surgeons were asked to provide estimates for five distinct periods: preoperative, skin-to-skin, total intraoperative, immediate postoperative, and later postoperative. Postoperative data were limited to hospital care.

### Results of Comparison

Pre/post times are higher in the Hsiao study than in the Abt Survey (Table 5-6). For 10 operations that were surveyed in both studies, perioperative hospital time was 23 percent higher, on average, in the Hsiao study than in the Abt Survey. Preoperative times were 12 percent higher while postoperative hospital times were 25 percent higher than Abt's times.

Among the 10 codes included in the analysis, postoperative hospital times for six codes were estimated from Hsiao regressions. Hsiao times that diverge the greatest (30 percent to 72 percent higher) were predicted from regressions, as described above.

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[4] Phase III of the Hsiao study is in progress. The primary purpose of Phase III is to create RWVs for CPT codes that either were not studied or were assigned values through extrapolation in Phases I and II. Pre/post RWVs are being generated for surgical global services using a small group process (about 15 physicians per specialty).

[5] The other five specialties societies were: the American Association for Thoracic Surgery, the Southern Thoracic Surgical Association, the Western Thoracic Surgical Association, the Society for Vascular Surgery, and the North American Chapter of the International Society for Cardiovascular Surgery.

Table 5-6. Pre/Post Time in the Abt Cardiothoracic and Vascular Surgery Survey and Hsiao Study

| | | Ratio of Abt Time to Hsiao Time | | |
|---|---|---|---|---|
| **Surgical Global Service (CPT Code)** | **Descriptor** | **Preoperative Hospital Visit(s)** | **Postoperative Hospital Visits** | **All Hospital Visits** |
| 32020 | Tube Thoracostomy | 0.94 | 0.81 | 0.84 |
| 32480 | Lobectomy | 0.78 | 0.70 | 0.71 |
| 33207 | Pacemaker Insertion | 0.85 | 0.91 | 0.89 |
| 33405 | Aortic Valve Replacement | 0.87 | 0.71 | 0.74 |
| 33512 | CABG X 3 | 0.89 | 0.77 | 0.80 |
| 33681 | Closure VSD | 0.89 | 0.70 | 0.74 |
| 34201 | Arterial Embolectomy | 1.14 | 0.93 | 0.98 |
| 35081 | Repair Abdominal Aneurysm | 0.83 | 0.58 | 0.63 |
| 35301 | Carotid Endarterectomy | 0.93 | 0.97 | 0.95 |
| 39400 | Mediastinoscopy | 0.76 | 0.90 | 0.85 |
| **MEAN** | | 0.89 | 0.80 | 0.81 |

Source: Abt Cardiothoracic and Vascular Surgery Survey and Phase II of the Hsiao Study.

Note: Ratios of geometric means for each CPT code.

## ASSIGNING RELATIVE WORK VALUES TO SURGICAL GLOBAL SERVICES

The assignment of RWVs to surgical global services according to a uniform surgical global policy requires assignment of RWVs to all component services. These services include evaluation and management (EM) services and surgical services. Total RWVs for surgical services categorized as a surgical global services will result from summing the RWVs assigned to each of the following components:

- preoperative visits;
- the operation itself (including all usual and necessary intraoperative procedures, scrub time, and other non skin-to-skin time);
- the recovery room visit;
- all postoperative nonrecovery room hospital visits; and

- all postoperative office visits provided within 90 days of surgery.[6]

Before implementation of the Medicare Fee Schedule, a clear policy specifying how invasive services should be categorized for payment (global or nonglobal) must be developed. This policy, will determine which of the components listed above will be included in the fee for any particular invasive service. Currently, there is no clear policy specifying how invasive services should be categorized. In Phase II of the Hsiao study, surgical services were generally assigned pre/post work consistent with surgical global services if they were not "starred" in CPT. The criteria used by the American Medical Association's *Current Procedural Terminology* (CPT) in identifying "starred" procedures are not apparent.

According to recently published proposed rules, the Health Care Financing Administration (HCFA) intends to adopt a surgical global policy that is very close to the Commission's policy (Federal Register 1991). Final regulations defining the surgical global package are expected in October 1991.

HCFA's proposed surgical global policy differs in two important ways from the Commission's policy. First, HCFA proposes to include all preoperative visits provided within 30 days of surgery in the global fee. In practice, the number of visits included under this policy would probably not vary significantly from the number that would be included under the Commission's policy. This is because, for most operations, few preoperative visits are made between the surgical consultation (excluded from the global fee) and admission to the hospital. For certain operations, however, the surgeon may routinely provide more extensive preoperative care. In these instances, under the HCFA policy, final RWVs will need to be adjusted to reflect this care.

The second difference between the two proposed policies is that HCFA recommends including all procedural services related to treatment of complications, except those that require a return to the operating room, in the surgical global fee. The Commission's policy includes EM services related to complications, however, it excludes all nonoperative technical procedures, regardless of whether they are performed as a result of complications. The Commission believes that HCFA's proposed policy would not fully account for the resource costs associated with caring for the sickest patients. If implemented, the Commission recommends that HCFA allow surgeons to submit separate bills for procedural services related to complications rather than include them in the global service. Otherwise, an adjustment to relative work values will be needed in cases where a surgeon provides additional procedural services related to complications.

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[6] The relative work values for surgical services published in the June 5, 1991 Federal Register reflect perioperative work as measured by Phases I and II of the Hsiao study. Hsiao intended to measure a perioperative period that is consistent with the Commission's 90-day policy although he did not specify a timeframe in his study questions.

### Further Refinements to the Scale of Relative Work

The Commission believes that total RWVs can be assigned to surgical global services only after several decisions and refinements are made to the scale of relative work. Two of these refinements are particularly relevant to the development of RWVs for surgical global services.

First, an adjustment is needed to intraservice work to account for pre- and post incisional work that accompanies many procedures. The thoracic and vascular surgeons contracted for a resurvey of their specialty (Noether and others 1990), in part, because they felt that RWVs assigned in the Hsiao study did not fully account for this work. Comparison of data from the Abt Survey and the Hsiao study by Commission staff and members of an interspecialty panel suggest that their concerns are justified and may apply to certain operations in other specialties as well (PPRC 1991b).

Second, the Commission believes that estimates of work per unit of time (W/T), or intensity, for pre- and postoperative EM services must be refined. Total RWVs for surgical global services depend not only on the time involved in providing pre- and postoperative visits but also on the W/T applied to these times. RWVs for EM services will have a profound effect on total RWVs for surgical global services because they comprise a large portion of the total service.

The Commission concludes that the intensities assigned to EM services in Phase II of the Hsiao study should be adjusted upward. This is because Hsiao RWVs appear to understate the intensity of shorter visits and do not reflect differences in intensity among classes of visits. Understatement of the intensities of shorter visits will lead to lower total RWVs for surgical global services since most perioperative visits are relatively short.

The Commission used data from its Visit Survey to assess how well the RWVs assigned to visits of different durations and different types in Phase II of the Hsiao study reflect the pattern of work seen in actual practice (PPRC, 1991a). Its analysis revealed that the RWVs submitted by Hsiao in the Phase II Final Report show a very different relationship between encounter time and total work than the relationship resulting from the Visit Survey.

Hsiao RWVs, which are based on equations estimated with mean values of encounter time and total work, describe a relationship in which the total work per unit of encounter time increases as visits become longer. That is, a 10 percent increase in encounter time results in a greater than 10 percent increase in total work. By contrast, regressions estimated using individual physician data from the Visit Survey describe a relationship in which the total work per unit of encounter time decreases as visits become longer. Even though shorter visits have will have lower RWVs than longer visits, regression results based on individual, rather than mean, physician responses show that they should have higher intensities relative to longer visits (PPRC 1991a).

The Commission sought the advice of an interspecialty physician panel concerning the W/T relationships for EM services. Members of this panel, representing physicians who provide a broad spectrum of visits, reviewed the pattern of work in the Hsiao study and the Visit Survey. Following the advice of this panel, the Commission made recommendations concerning intensities for EM services (PPRC 1991b). The Commission believes that the pattern of work for EM services should result in equitable payment to all types of physicians (including those who provide primarily shorter or longer visits), protect access to care and quality of care for all types of Medicare beneficiaries, and provide neutral incentives for the utilization of EM services.

### Interim Relative Work Values

Until decisions and refinements related to the issues raised above are made, development of final RWVs for surgical global services must be delayed. In the meantime, the Commission developed interim RWVs drawing from both the Hsiao study and its Visit Survey. Analysis of the relationship between pre/post work and total work was conducted for 200 specialty/code combinations.

The Commission's approach to assigning RWVs to the EM component of surgical global services uses data from the Hsiao study and the Visit Survey to assign aggregate total work to EM services and data from the Visit Survey to distribute total EM work across classes of visits and levels of service (PPRC 1991a). Data from the Visit Survey were adjusted to the Hsiao scale of relative work. Pre- and postoperative visits were assigned RWVs using the W/T relationships of three relevant classes of visits: initial hospital visit, subsequent hospital visits, and established patient office visit (Table 5-7). Initial preoperative visits were assigned RWVs for initial hospital visit, according to duration. If a second preoperative visit was included in the visit pattern, it was assigned the RWV for a subsequent hospital visit. Recovery room visits were also assigned RWVs for initial hospital visits to reflect the higher intensity of these visits in the absence of a distinct class of visits for recovery room visits. All postoperative hospital visits were assigned RWVs for subsequent hospital visits and postoperative office visits were assigned RWVs for established patient office visit. For the intraservice component of surgical global services, the Commission adopted intraservice RWVs from Phase II of the Hsiao study.

Table 5-7. Work Values for Visits

| | First Pre-op Visit | Subsequent Pre-op Visit | Recovery Room Visit | Other Post-op Hospital Visits | Post-op Office Visit |
|---|---|---|---|---|---|
| Visit Encounter Time | Initial Hospital Visit | Subsequent Hospital Visit | Initial Hospital Visit | Subsequent Hospital Visit | Established Patient Office Visit |
| 5 | 30 | 27 | 30 | 27 | 31 |
| 10 | 45 | 37 | 45 | 37 | 41 |
| 15 | 56 | 45 | 56 | 45 | 49 |
| 20 | 69 | 52 | 69 | 52 | 55 |
| 25 | 79 | 58 | 79 | 58 | 61 |
| 30 | 89 | 63 | 89 | 63 | 65 |
| 35 | 97 | 68 | 97 | 68 | 70 |
| 40 | 106 | 73 | 106 | 73 | 74 |
| 45 | 114 | 77 | 114 | 77 | 78 |
| 50 | 121 | 81 | 121 | 81 | 81 |
| 55 | 128 | 85 | 128 | 85 | 85 |
| 60 | 135 | 88 | 135 | 88 | 88 |

Source: Commission analysis of data from the Visit Survey and Phase II of the Hsiao Study.

The average ratios of pre/post work to total work developed for 13 specialties ranged from 0.39 for neurosurgery to 0.65 for podiatry, however, the remaining 11 specialties had strikingly similar pre/post to total work ratios (Table 5-8). Pre/post work as a percent of total work is between 50 and 60 percent for seven of the specialties. The remaining four specialties had ratios between 0.44 and 0.49. Within specialties there is a relatively small amount of variation in this ratio (Appendix L). Eleven specialties have coefficients of variation of 21 percent or less.

Interpretations of the ratios of pre/post work to total work for specialties at the extremes of the range were considered. For neurosurgical operations, having an average ratio of 0.39, both pre/post and intraservice work values are high relative to several other specialties' operations. The intraservice work values, however, are often two to three-fold higher than other specialties such as general surgery while pre/post work values are closer, on average, to those found in other specialties. On the face of it, this ratio seems about right considering the complexity of neurosurgery relative to other types of surgery. For podiatric operations, with an average ratio of pre/post to total work of 0.65, it appears that low intraservice RWVs relative to other specialties account for most of the interspecialty difference.

**Table 5-8. Ratios of Pre/Post Work to Total Work**

| Specialty | Mean<br>(SD) | Range |
|---|---|---|
| Dermatology<br>N = 15 | .52<br>(.10) | .36 - .67 |
| General Surgery<br>N = 25 | .52<br>(.11) | .28 - .81 |
| Neurosurgery<br>N = 11 | .39<br>(.08) | .23 - .51 |
| Obstetrics/Gynecology<br>N = 18 | .54<br>(.08) | .39 - .71 |
| Ophthalmology<br>N = 16 | .47<br>(.09) | .33 - .63 |
| Oral and Maxillofacial Surgery<br>N = 14 | .53<br>(.10) | .37 - .71 |
| Orthopedic Surgery<br>N = 19 | .55<br>(.11) | .39 - .75 |
| Otolaryngology<br>N = 15 | .44<br>(.14) | .23 - .81 |
| Plastic Surgery<br>N = 17 | .56<br>(.16) | .28 - .89 |
| Podiatry<br>N = 12 | .65<br>.08 | .51 - .79 |
| Thoracic Surgery<br>N = 9 | .46<br>(.07) | .33 - .57 |
| Urology<br>N = 18 | .49<br>(.09) | .31 - .73 |
| Vascular Surgery<br>N = 11 | .53<br>(.11) | .41 - .75 |

Source: PPRC Survey of Physicians and Phase II of the Hsiao Study.

Note: Analysis reflects the PPRC's Survey of Physicians' specialty designation.

The Commission considers these ratios based on interim RWVs to be upper bounds for ratios that will result from final RWVs for two reasons. First, the interim RWVs are based on W/T relationships for EM services derived from the Commission's Visit Survey. These relationships result in a more severe decrease in total work per unit of encounter time as visits become longer than results from the Hsiao study. The Commission expects final RWVs for EM services to reflect a pattern of work that assigns lower RWVs to relatively brief pre- and postoperative visit than are shown in Table 5-7 but higher than the RWVs that would result from the Hsiao data. Second, there is evidence that the Hsiao study understates the intraservice work component of surgical services by not accounting for pre- and postincisional operating room work (PPRC 1991b). Increasing the intraservice work component will in turn increase the total RWV and lower the ratios of pre/post work to total work.

## EXPANDING UPON THE COMMISSION'S DATA

The Commission's data on the number, site, and duration of perioperative visits together with work per unit of time relationships will enable assignment of total RWVs to 160 surgical global operations. These 160 services, representing 62 percent of Medicare expenditures on surgical global services, can be used as a basis for expansion to all surgical global services.

One approach to expanding upon the Commission's work would be to analyze ratios of pre/post work to total work once RWVs for the 160 codes are finalized. The Commission's analysis using interim RWVs demonstrates that the relationship of pre/post work to total work is fairly constant within specialties and, to a large extent, across specialties. Ratios of pre/post to total work for closely related services could be examined for patterns that would allow broader application. Results of this analysis could provide a basis for a percentage add-on to the intraservice work values of unstudied codes. For example, if closely-related orthopaedic procedures included in the 160 codes are found to have ratios of pre/post to total work ranging from 0.50 to 0.55, these ratios could form the basis for developing pre/post work values for other closely-related codes that were not studied. Expert panels of physicians could assist with this effort by providing face validity for total RWVs developed using families of codes.

Another approach for extrapolating the Commission's visit patterns to the universe of surgical services would be to use the Commission's specialty society data containing information on almost 6,000 CPT codes. As described in Chapter 2, specialty societies submitted data to the Commission in a variety of ways. Some societies grouped operations into clinically meaningful families and assigned one visit pattern to all members of one family. For example, the American College of Obstetricians and Gynecologists grouped their operations into eight categories and assigned each service within a category the same visit pattern (preoperative hospital visits, postoperative hospital visits and postoperative office visits). Using the 160 codes from the physician survey and families of codes as determined by the specialty societies, it would be possible to expand the visit patterns to entire families or subgroups within families.

## CONCLUSION

The Commission visit patterns result from the combined analysis and application of specialty society data; objective data, including claims files that reflect actual practice; and responses from over 1,700 practicing surgeons. Because multiple sources of data were used rather than a single source, such as small panels of physicians, the Commission believes that its data on the number, site, and duration of perioperative visits provide an excellent basis for the development of total RWVs for surgical global services.

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# APPENDIX A

# THE COMMISSION'S SURGICAL GLOBAL SERVICE POLICY

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## SURGICAL CONSULTATION

The principal surgeon's evaluation of a patient for a new surgical problem is *not included* in the global service. The value of the consultation will not be included in the global fee and the surgeon will be allowed to bill for this service separately.

## PREOPERATIVE VISITS

All preoperative *hospital visits* provided by the principal surgeon on the *day before and the day of* surgery (with the exception of the consultation) are included in the global service. Only the value of these preoperative visits will be included in the global fee. The surgeon will be allowed to bill for all other preoperative visits separately.

## POSTOPERATIVE VISITS

All *institutional and outpatient* visits provided by the principal surgeon during the *90 days* following the primary operation are included in the global service *unless* the visit is for a problem unrelated to the diagnosis for which surgery is performed. Postoperative visits for complications of surgery are *included* in the global service.

## NONOPERATIVE PROCEDURES

All technical procedures not usually performed at the time of surgery are *excluded* from the global service. The only exceptions to this rule are dressing changes, local incisional care, and removal of operative packs; removal of cutaneous sutures, staples, lines, wires, tubes, drains, casts, and splints; insertion, irrigation and removal of urinary catheters, routine peripheral intravenous lines, and nasogastric and rectal tubes; and change and removal of tracheostomy tubes. The value of all other technical procedures will not be included in the global fee. The surgeon will be allowed to bill for additional indicated procedures separately.

## INTRAOPERATIVE SERVICES

All intraoperative services performed by the principal surgeon that are a *usual and necessary* part of the primary operation are included in the global service. Unusual services related to the primary operation, concurrent operations (operations performed at the same time as the primary operation but for another diagnosis), and reoperations for complications are *excluded.* The value of these additional intraoperative services will not be included in the global fee; if indicated and performed, the surgeon will be allowed to bill for them separately.

Additional operations performed at the time of the primary operation but not encompassed by the CPT code for the primary operation will be reimbursed at rates *less* than their full global fee. The reduction in fee will reflect the savings in resource costs that is achieved when two operations are performed through the same incision or at the same time and when postoperative care is provided concurrently.

Staged operations and reoperations for complications performed within 90 days of the primary operation will be reimbursed at rates *less* than the full global fee to reflect the savings in resource costs achieved when postoperative care is provided concurrently.

## SHARED AND CONCURRENT CARE

Policies for shared and concurrent care are needed to account for circumstances when physicians other than the principal surgeon participate in the care of a surgical patient. These policies allow the global payment to be divided among two physicians who jointly provide a surgical global service, and they allow payment to a physician other than the principal surgeon who performs a necessary consultation. These policies are not intended to encourage or condone "fee-splitting."

### Shared Care

When a physician other than the principal surgeon provides a service *included* in the global package, the principal surgeon's fee will be *reduced.* This policy will apply when the operating surgeon does not provided complete postoperative care for a patient (most commonly for geographic reasons). The reduction in payment will be based on the resource costs of the postoperative hospital and/or office visits used to calculate the global fee.

### Concurrent Care

When a physician other than the principal surgeon provides a service *not included* in the global package, the principal surgeon's fee will *not* be reduced. This policy will apply when services are provided by an assistant surgeon, co-surgeon, or consultant. The concurrent care must be documented as medically necessary.

## GLOSSARY

**Concurrent Care.** A service *not* included in the global package that is provided by a physician other than the principal surgeon.

**Intraoperative Service.** A service performed in the operating room by the principal surgeon.

**Nonoperative Procedure.** A technical service *not* performed at the time of surgery. Evaluation and management services are *not* included in this category.

**Reoperation.** A return to the operating room to manage complications of the primary operation.

**Shared Care.** A global service provided jointly by two physicians.

**Staged Operation.** A planned operation to complete or perfect the primary operation.

**Surgical Consultation.** The principal surgeon's evaluation of a patient for a new surgical problem.

**Visit.** Evaluation and management services that are provided preoperatively and postoperatively. Technical and invasive services are *not* included in this category.

# APPENDIX B

# LETTER TO SPECIALTY SOCIETIES

PHYSICIAN PAYMENT REVIEW COMMISSION
2120 L Street, NW • Suite 510
Washington, DC 20037
(202) 653-7220 FAX (202) 653-7238

Philip R. Lee, M.D
Chairman
Paul B. Ginsburg, Ph.D.
Executive Director

January 6, 1989

Dear __________:

The interspecialty consensus panel has completed its task of developing a policy to standardized codes for surgical services. This policy received the unanimous approval of the 38 surgeons and carrier representatives on the panel and was also approved unanimously by the members of the Commission. It will be incorporated in the Commission's proposal for a fee schedule to pay physicians under the Medicare program.

As described on page 22 of the enclosed report, the policy will be used to calculate fees and implement payment for operations. The fee for each surgical global service will be based on the sum of the values of its component parts: preoperative hospital visits provided by the principal surgeon on the day before and day of surgery, institutional and outpatient visits provided by the principal surgeon during the 90 days following the primary operation, and intraoperative services performed by the principal surgeon that are a usual and necessary part of the primary operation. The surgical consultation, nonoperative technical procedures, unusual intraoperative services, and additional operations not encompassed by the CPT code for the primary operation are excluded from the global service. Therefore, the value of these services will not be included in the global fee and the surgeon will be allowed to bill for them separately. Uniform implementation of the global service policy will be accomplished by providing carriers with a standardized list of the component services included in the global fee for each operation.

Surgical specialty societies will have an important role to play in operationalizing this policy. To assure equitable payment and consistent implementation under the fee schedule, surgical specialty societies will be asked to:

- specify the number, duration, and intensity of preoperative hospital visits typically provided by the principal surgeon on the day before and day of surgery for each operation in their field;
- specify the number, site, duration, and intensity of institutional and outpatient visits typically provided by the principal surgeon in the 90 days following surgery for each operation in their field;
- identify the intraoperative services performed by the principal surgeon that are a usual and necessary part of each operation in their field; and
- identify CPT codes for nonoperative invasive procedures in their field that should not be paid on the basis of a global fee.

**Preoperative and Postoperative Visits.** The information regarding pre-and postoperative visits will be used by the Commission to calculate a fee for each operation and must be received no later than **June 1, 1989.** The information may be obtained by any of a number of approaches. For example, some societies may choose to survey all or a sample of their membership; others may choose to use a committee or consensus process. Information may be provided for individual CPT codes that represent specific operations or for groups of CPT codes that represent categories of operations. The enclosed sample forms demonstrate the way the data should be recorded.

Societies should provide the Commission with the number, average **duration** (in minutes), and average **intensity** (minimal, brief, limited, intermediate, extended, comprehensive) of **preoperative** visits for each operation in their field. Please note that this applies only to **hospital** visits typically provided by the **principal surgeon** on the **day before and day of** surgery and that it does not apply to the surgical consultation. Most operations will be associated with only one short preoperative visit. Operations usually performed in the office or surgicenter will not be associated with any. (For operations that are performed in both hospital and non-hospital settings, the societies should specify the frequency of performance in each site).

Societies should also specify the **number, site,** average **duration** and average **intensity** of **postoperative** visits for each operation in their field. Please note that this applies to all **hospital** (intensive care, transitional care, recovery room, routine hospital care) and **outpatient** visits provided by the principal surgeon for a typical patient in the **90 days** following surgery. The duration and intensity of each visit should reflect **only** the evaluation and management services provided. Nonoperative technical procedures are not included in the global service and will be reimbursed separately from the global fee.

Information about the number and intensity of visits will enable the Commission to calculate equitable global fees that reflect the specific pre- and postoperative care associated with each operation. To be sure that the information used for this purpose is as accurate as possible, the Commission will carefully review the data provided by the specialty societies. It will be compared with available sources of objective data (for example, hospital data about average length of stay), and will be evaluated by outside consultants. The Commission will also resolve any interspecialty differences that may arise.

**Intraoperative services.** The information regarding intraoperative services will be used by the Commission to standardize carrier interpretation and implementation of the global service policy. It must be received no later than **September 1, 1989.** Societies should provide a list of all intraoperative services performed by the **principal surgeon** that are a **usual and necessary** part of each operation in their field. This should include all routine intraoperative invasive procedures and suboperations that are encompassed by the CPT code for the primary operation. It should **not** include unusual intraoperative services or additional operations not encompassed by the CPT code for the primary operation. Specialty societies may find it difficult to construct a list for all operations in their field by the September date. If so, they should concentrate first on operations about which carriers and surgeons are most likely to disagree.

**Nonglobal Services.** As a final request, the Commission is asking the specialty societies to identify the codes for nonoperative invasive procedures in their field that should **not** be paid on the basis of a global fee (these are known as "starred procedures" in CPT). The policy developed by the consensus panel will only be applied to operations; it is not meant to be applied to nonincisional procedures (for example, cystoscopy) or to invasive procedures that are frequently performed by nonsurgeons (for example, bronchial and gastrointestinal endoscopy and coronary angioplasty). Surgeons on the consensus panel were concerned that starred procedures in CPT may not identify all nonglobal procedures. For this reason, specialty societies are being asked to review the codes in their field and to provide the Commissions with an accurate list. To assure appropriate payment for these services, the list must be received no later than **September 1, 1989.**

The Commission appreciates the role that surgeons have played in the standardization of codes for surgical global services. The members of the panel devoted substantial time and effort to the consensus process and unanimous approval of the global service policy is a tribute to the quality of their work. We are also pleased that the specialty societies will have an opportunity to influence the implementation of this policy. Your continued involvement will assure equitable payment for surgical global services under the Medicare fee schedule and consistent carrier implementation.

Please let the Commission know your anticipated timeframe for providing this information. Also, please feel free to call Roz Lasker, M.D., Ann Mongoven, or Maureen Molloy with any questions or problems you may have. We look forward to working with you.

Sincerely,

Philip R. Lee

Philip R. Lee, M.D.
Chairman

Paul B. Ginsburg

Paul B. Ginsburg, Ph.D.
Executive Director

# APPENDIX C

# INSTRUCTIONS TO SPECIALTY SOCIETIES

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## SUBMISSION OF DATA FOR VISITS PATTERNS

### General Instructions

For each operation performed by your specialty, please specify the following information on the forms provided (please xerox as many forms as you need):

- the name and CPT code of the operation;
- the frequency with which that operation is performed in an inpatient setting, expressed as a percent;
- preoperative hospital visits typically provided on the day before surgery or the day of surgery (give them in minutes and circle the appropriate intensity level);
- postoperative visit within 90 days of surgery:
  - give day number, where day 0 = day of surgery, day 1 = the first day after surgery, and day 90 = the end of the global service time period;
  - give time in minutes;
  - circle the appropriate intensity level;
  - for site of service, circle either "office" or "hospital;" and
  - for hospital visits, specify precise site -- routine, critical care, recovery room, or transitional care -- in the blank provided. Transitional care refers to step-down or intermediate care (care rendered between intensive care and routine care.)
- if more than one visit is typically provided on the same day, please list each visit separately.

### Example for Operation X

Following is a verbal description of the typical visit pattern for Operation X. (The relationships between time in minutes and intensity descriptors used in this example are purely hypothetical). The attached sample form demonstrates how this information should be submitted to the Commission.

Operation X, CPT code 11111, is always performed on an inpatient basis. Typically, a surgeon performing Operation X conducts one brief hospital preop visit the day before surgery (10 minutes). Following surgery but on the same day as surgery, the surgeon performs one intermediate visit with the patient in the recovery room (20 minutes). On the first day after the operation, the surgeon provides one intermediate visit (20 minutes) in a transitional care unit, and one brief visits (5 minutes) after the patient has been transferred to a routine setting. Subsequently, the surgeon conducts a limited routine hospital visit each day until the patient's discharge, typically 4 days after surgery (15 minutes each). After discharge, the surgeon provides 3 intermediate office visits during the 90 day period (20 minutes each): one month after surgery, 7 weeks after surgery, and 10 weeks after surgery.

## OPERATION INFORMATION

Name of Operation X CPT Code 11111

In 100 % of the cases, this operation is performed in an inpatient setting.

### PREOPERATIVE VISITS – HOSPITAL ONLY

**DURATION** **INTENSITY**

Day Before Operation 10 in minutes [✓ Brief] Limited Intermediate Extended Comprehensive

Day of Operation ___ in minutes Brief Limited Intermediate Extended Comprehensive

### POSTOPERATIVE VISITS

**DURATION** **INTENSITY**

Day (0) of Operation 20 in minutes Brief Limited [✓ Intermediate] Extended Comprehensive

Site: Office — *If site is Office, no other information is needed* —

Hospital ✓ (Specify ROUTINE, CRITICAL, [✓ RECOVERY], OR TRANSITIONAL)

……

Day 1 20 in minutes Brief Limited [✓ Intermediate] Extended Comprehensive

Site: Office — *If site is Office, no other information is needed* —

Hospital ✓ (Specify ROUTINE, CRITICAL, RECOVERY, OR [✓ TRANSITIONAL])

……

Day 1 5 in minutes [✓ Brief] Limited Intermediate Extended Comprehensive

Site: Office — *If site is Office, no other information is needed* —

Hospital ✓ (Specify [✓ ROUTINE], CRITICAL, RECOVERY, OR TRANSITIONAL)

……

Day 2 15 in minutes Brief [✓ Limited] Intermediate Extended Comprehensive

Site: Office — *If site is Office, no other information is needed* —

Hospital ✓ (Specify [✓ ROUTINE], CRITICAL, RECOVERY, OR TRANSITIONAL)

……

Day 3 15 in minutes Brief [✓ Limited] Intermediate Extended Comprehensive

Site: Office — *If site is Office, no other information is needed* —

Hospital ✓ (Specify [✓ ROUTINE], CRITICAL, RECOVERY, OR TRANSITIONAL)

……

Day 4 15 in minutes Brief [✓ Limited] Intermediate Extended Comprehensive

Site: Office — *If site is Office, no other information is needed* —

Hospital ✓ (Specify [✓ ROUTINE], CRITICAL, RECOVERY, OR TRANSITIONAL)

## OPERATION INFORMATION continued

Name of Operation X
CPT Code 11111
Page # 2

### POSTOPERATIVE VISITS

DURATION INTENSITY

Day 30 20 in minutes Brief Limited [✓ Intermediate] Extended Comprehensive
Site: [✓ Office] *— If site is Office, no other information is needed —*
Hospital ______ (Specify **ROUTINE, CRITICAL, RECOVERY, OR TRANSITIONAL)**

……

Day 49 20 in minutes Brief Limited [✓ Intermediate] Extended Comprehensive
Site: [✓ Office] *— If site is Office, no other information is needed —*
Hospital ______ (Specify **ROUTINE, CRITICAL, RECOVERY, OR TRANSITIONAL)**

……

Day 70 20 in minutes Brief Limited [✓ Intermediate] Extended Comprehensive
Site: [✓ Office] *— If site is Office, no other information is needed —*
Hospital ______ (Specify **ROUTINE, CRITICAL, RECOVERY, OR TRANSITIONAL)**

……

Day _____ ____ in minutes Brief Limited Intermediate Extended Comprehensive
Site: Office *— If site is Office, no other information is needed —*
Hospital ______ (Specify **ROUTINE, CRITICAL, RECOVERY, OR TRANSITIONAL)**

……

Day _____ ____ in minutes Brief Limited Intermediate Extended Comprehensive
Site: Office *— If site is Office, no other information is needed —*
Hospital ______ (Specify **ROUTINE, CRITICAL, RECOVERY, OR TRANSITIONAL)**

Day _____ ____ in minutes Brief Limited Intermediate Extended Comprehensive
Site: Office *— If site is Office, no other information is needed —*
Hospital ______ (Specify **ROUTINE, CRITICAL, RECOVERY, OR TRANSITIONAL)**

……

Day _____ ____ in minutes Brief Limited Intermediate Extended Comprehensive
Site: Office *— If site is Office, no other information is needed —*
Hospital ______ (Specify **ROUTINE, CRITICAL, RECOVERY, OR TRANSITIONAL)**

# APPENDIX D

# SPECIALTY SOCIETY DATA

Specialty societies provided varying numbers of visit patterns depending upon the scope of their specialties. They also used different approaches to accomplish the work of this project and enlisted the assistance of varying numbers of physicians in the process. The societies provided visit patterns on a total of 5,912 codes. Ten societies developed visit patterns using a consensus process and four used a combination of consensus and committee approaches.

Staff from the Commission and Abt Associates were in frequent contact with representatives of the fourteen specialty societies throughout the process. Staff members of each society were assigned as liaisons to the Commission to facilitate communication. The Commission was impressed by the diligence shown by the specialty societies and thoughtful way in which they conducted the work of this project. It is confident that all specialty societies provided the very best information that they had available to them at the time.

## American Academy of Dermatology

**Process.** The American Academy of Dermatology (AAD) asked fourteen dermatologists representing a mix of geographic locations and practice types to complete the Commission worksheet for each operation they had performed recently. This information was tabulated and organized into a briefing book. Eleven of the participants met over a two-day period to review the material and reach consensus. In some cases, consensus was not reached, and a range of values was submitted instead.

**Data.** All operations for which visit patterns were submitted were identified as outpatient operations. The worksheets were grouped into 15 families of operations; each code within a family was assigned the same visit pattern. The AAD did not indicate any preoperative visits for outpatient procedures, and the first postoperative visit was always assigned after the day of surgery. The AAD did not provide any data on length of stay or the percent of the time each operation is performed on an inpatient basis.

The AAD indicated that about 280 operations are also performed in an inpatient setting, although infrequently (less than 5 percent of the time). All of these were assigned the same pre- and postoperative hospital visit pattern. Following discharge, each operation was assigned the full visit pattern associated with the operation when performed on an outpatient basis. The AAD indicated that there are no postoperative visits on the day of surgery in either setting. Inpatient operations were defined as requiring the use of the operating room and requiring the patient to remain in the hospital for at least 24 hours.

The society also indicated that when multiple operations are performed as part of the same operation, (ie: excision and repair) the visit pattern with the greatest total time should be used. Several phone calls were necessary to correct the notation for codes which could be done in combination. Operations that always are performed with another operation were flagged. The first operation is referred to as the primary code and the second is referred to as the secondary code. The visit pattern for the secondary code superseded the primary code's visit pattern.

### American College of Surgeons

**Process.** The American College of Surgeons (ACS) used a consensus approach involving a group of nine general surgeons representing a range of practice settings, geographic locations, and clinical experience. Five surgeons from this group met to develop a standard list of the number and duration of pre- and postoperative visits associated with inpatient and outpatient settings. For example, this list specified that for inpatient procedures, postoperative days 1 through discharge would require 1 routine visit per day lasting 10 minutes.

Next, general surgery CPT-defined services were divided among the surgeons who developed estimates independently of pre- and postoperative visit patterns for each service. Four of these surgeons met a second time to review the estimates and reach consensus. A subsequent meeting was held with all nine surgeons present to conduct a final review of the visit patterns and to reach consensus.

**Data.** The ACS sometimes provided separate visit patterns for inpatient and outpatient settings. They defined inpatient as requiring at least a 24 hour stay in the hospital.

Abt's medical records consultant identified a number of operations that could be done following another operation (staged operations) and a list of these operations was sent to the ACS for review. The ACS agreed with the list and indicated that the visit pattern for the second code in a sequence should replace the visit pattern for the primary code. They noted, however, that the timing of the second operation varied from two weeks to more than 90 days after the primary operation. Operations that were always performed as secondary operations received a flag and their visit pattern replaced that of the first.

### American Association of Neurological Surgeons and Congress of Neurological Surgeons

**Process.** The American Association of Neurological Surgeons (AANS) delegated the work of this project to its ad hoc Physician Reimbursement Committee. Worksheets were distributed to the five committee members who informally surveyed neurosurgeons within each geographic region. The committee met several times and circulated the worksheets among themselves. The committee then held a joint meeting with representatives of two other neurosurgery associations as well as officers of their own association for the purpose of reviewing these data.

Next, the completed worksheets were submitted to the Board of Directors of the AANS for review and approval. For one esoteric group of procedures, two specialists were appointed to provide visit patterns, bringing the total number of physician participants in this project to 26 (not including those informally surveyed).

**Data.** One visit pattern per code was provided since most neurosurgical operations are performed in an inpatient setting only. The AANS used ranges of minutes in some cases. Codes were organized into 71 families.

Length of stay was generally not specified. Rather, a marginal note indicated that "daily visits continue until discharge". The discharge day was designated as the day of the last hospital visit.

Visit patterns were provided for some codes that were deleted from CPT. The deleted codes and the corresponding visit pattern were entered, and the codes were mapped to valid 1989 codes by the medical record consultant.

### American College of Obstetrics and Gynecology

**Process.** Five Fellows of the American College of Obstetrics and Gynecology (ACOG) formed a consensus panel with each surgeon completing data worksheets for a specified group of CPT-defined services. The results were compiled and arranged into eight groups of services according to visit patterns. The panel reached consensus on the visit patterns. In developing estimates for one of the eight groups, consultation with three gynecologic oncologists was obtained. At the end of the consensus process, the Committee on Gynecologic Practice reviewed the results, bringing the total number of reviews to three.

**Data.** Operations were grouped into eight families with each member of a family assigned the same visit patterns.

Unlike other specialty societies, ACOG used the 1990 version of CPT as its reference in developing visit patterns. This was because obstetrical and gynecological codes underwent significant revision between 1989 and 1990 with several additions and deletions. For comparison with objective data from earlier years, these codes were cross-walked to 1989 codes by the medical record consultant in consultation with ACOG.

Visit patterns were provided for two codes that are always performed with another operation. In these instances, the visit pattern for the second operations supersedes the primary operation's visit pattern. ACOG's data included ranges of minutes for visit durations.

### American Academy of Ophthalmology

**Process.** The American Academy of Ophthalmology (AAO) used a consensus panel of 41 ophthalmologists representing six subspecialty areas and 15 states. They began the process by asking the leadership of several key ophthalmic societies to provide the names of three surgeons to develop visit patterns for codes within their areas of subspecialty. Where overlap occurred between the various subspecialists and generalists, multiple responses per code were obtained. Participants worked independently and returned their worksheets through the mail. An ad hoc committee of 16 ophthalmologists, local to Washington, DC, was convened to review the data from the 41 surgeons and produce a final document using a consensus approach.

**Data.** Data were provided in table form, rather than individually on the standard Commission worksheet. A computer diskette was also provided, making data entry unnecessary.

The Academy provided one visit pattern per code, designating each code as either inpatient or outpatient. An inpatient operation was defined by AAO as one that requires admission to the hospital.

The AAO did not specify the percent of the time each operation is performed on an inpatient basis. In addition, the site of the visit in the hospital (recovery room, routine) was not provided. Visit duration was sometimes provided in a range.

### American Association of Oral and Maxillofacial Surgeons

**Process.** The American Association of Oral and Maxillofacial Surgeons (AAOMS) convened an eight member task force representing a mix of geographic regions and practice types to develop visit patterns. The task force developed visit patterns for operations that were classified into 11 families. Where there was disagreement among members concerning a visit pattern, discussion occurred until consensus was reached. In a few cases, consensus could not be reached and a majority vote prevailed. Most of the work of this task force was carried out in person, however, some teleconferencing took place. The final report was approved by each of the members via mail.

**Data.** The AAOMS provided inpatient and outpatient data for most codes. Codes were grouped into eleven families. The families incorporated both inpatient and outpatient operations. Inpatient was defined as requiring an overnight stay in the hospital.

The AAOMS provided visit patterns for uncomplicated cases even when the typical case involved complications. For four codes they noted that an uncomplicated case was not typical. Rather, the average case was complicated by multiple traumatic injuries which increased the necessary visits. The AAOMS provided visit patterns for a number of American Dental Association (ADA) codes.

### American Academy of Orthopaedic Surgeons

**Process.** The American Academy of Orthopaedic Surgeons (AAOS) developed visit patterns using a consensus process that involved its Committee on Health Care Financing. Initially, the Academy categorized its services into ten areas, representing nine anatomical areas and arthroscopy. Two experts in each area comprised a 20-member task force. The task force completed worksheets for all orthopedic operations and then turned them over to a subgroup of nine task force members for review. Once reviewed by the subgroup, the data were reviewed by different levels of the AAOS's leadership, including the Board of Councilors (which has representatives from each state) and categorical committees (which focus on orthopaedic subspecialties). The task force also convened representatives from 12 orthopaedic specialty societies, independent of the AAOS, to review the data. Thirty-nine participants (including the nine core group members), worked in small groups and plenary sessions to develop the visit patterns.

Although outside data sources were not utilized in this process, the AAOS found that data from a recent society practice survey were consistent with the duration of pre- and postoperative visits as determined in its consensus process.

**Data.** The AAOS submitted their visit patterns in table form. All visit patterns referred to inpatient operations. Durations of pre- and postoperative visits were standardized across all operations.

For each operation, a specified number of hospital visits were reported; however, length of stay was not specified. AAOS verified that this implied one visit per day in the hospital.

A number of operations were always performed in conjunction with another operation. For the second operation, the AAOS provided only the additional visits required. In these cases, the second operation's visit pattern was added to the visit pattern for the first operation. These operations were flagged.

The AAOS provided only inpatient visit patterns, but said the visit patterns were applicable to either inpatient or outpatient settings.

The AAOS specified that some procedures are performed sequentially. The primary and secondary operations were flagged according to how visit patterns should be assigned.

### American Academy of Otolaryngology - Head and Neck Surgery

**Process.** The American Academy of Otolaryngology's (AAO) Relative Value Subcommittee prepared the data. Services were divided into seven subspecialty groups, and two or three subspecialists on the committee provided estimates of visit patterns independently and through teleconferencing.

The subspecialty groups reached consensus on visit patterns for all of their services in the course of two meetings. Results were presented to the entire panel for approval. At least 18 physicians participated in this project, and the data underwent three rounds of review until consensus was achieved.

**Data.** The AAO frequently provided multiple sheets for a single code to represent varying visit patterns according to setting. Both inpatient and outpatient settings were entered, however, the setting that was found to be most common in the Medicare claims files was used in the analysis. Some ranges of days, minutes, and sites were specified. Seventeen families were designated.

The AAO's definition of inpatient is a patient admitted to the hospital for an overnight stay, or a same day surgery patient admitted to the hospital or free-standing surgery center for only the perioperative period. This definition is broader that what was used by most other specialties.

The AAO believes that some CPT codes encompass a range of services that is too broad. In these instances, they provided multiple visit patterns for different possible scenarios for the same code.[1] They developed modifiers (c1, c2, and c3) for different levels of complexity for these codes. All worksheets were entered, the modifiers became flags, and the most simple case was used in the analytic file.

**American Society of Plastic and Reconstructive Surgeons**

**Process.** Visit patterns were developed using a consensus panel consisting of 14 members of the Health Policy Analysis Subcommittee of the Socioeconomic Committee and the Government Relations Committee. A consultant provided expert opinion in the subspecialty area of maxillofacial/plastic surgery. The group met for one day in July 1989. It did not use outside data, but relied on the group's clinical experience and judgement.

Each operation in the specialty was assigned to one of nine families. All codes within the families were assigned the same visit pattern.

**Data.** The ASPRS did not specify the site of service in the hospital (recovery room, routine). Two visit patterns were provided for many hand surgeries: one representing pre- and postoperative care where the surgeon provides all care and one that involves a hand therapist, independent of the surgeon, in postoperative care. In the latter case, fewer visits by the principal surgeon were indicated. Both were entered; the one involving a hand therapist was flagged. Comparison with objective data was based on the visit pattern where the principal surgeon provides all postoperative care.

---

[1] Commission staff notified the AAO that these modifiers would not be used in the analysis. For the purposes of this project, all analysis focused on the typical patient undergoing a surgery. In the future, the Commission will be examining issues related to severity of illness and age adjustments to surgical global payments.

### American Podiatric Medical Association

**Process.** The American Podiatric Medical Association (APMA) developed visit patterns using a 17-member task force and a separate consensus panel. The task force met twice and conducted some work through teleconferencing. The five-member Standards of Care Committee of the American College of Foot Surgeons also participated in this process. The worksheets from both groups were compiled and summarized by the APMA staff. After making some revisions to the summary, the data were presented to the consensus panel. Once consensus was reached, the report of the task force was presented to the Association Board of Trustees for approval.

**Data.** The APMA provided data for inpatient operations only. The Association initially submitted visit patterns associated with the typical Medicare patient. At the Commission's request, it submitted visit patterns reflecting care provided to the typical patient, all ages at a later date. The Commission plans to analyze and compare the two data sets in the future as part of its work to consider a Medicare adjuster to the Medicare Fee Schedule.

The Association provided data for inpatient visits only and included rules for developing visit patterns for outpatient operations.

### Society of Thoracic Surgeons

**Process.** The Society assigned the project to seven members of its Physician Reimbursement Committee. Operations in the field of thoracic and cardiovascular surgery were divided among the members on the committee according to subspecialty. The visit patterns derived by the subspecialists were collated into one volume, which was reproduced and sent back to the entire committee for evaluation. The Council members of the Society and officers of the other three thoracic surgery organizations (total of 14 participants) also reviewed the volume. Comments and suggested revisions were received and documented. A meeting was held to review the values for a final time. Some visit patterns were changed through consensus.

**Data.** One worksheet was provided for each operation. Visit patterns were provided for two operations that are not in the surgery section of the CPT-4 book (92970 and 92971). The society felt that these are operations that should be paid on the basis of a global fee.

## American Society of Transplant Surgeons

**Process.** A group of 15 surgeons appointed by the president of the American Society of Transplant Surgeons (ASTS) developed the visit patterns. The group was divided into subcommittees based on experience in performing the four major transplant operations: heart or heart/lung, liver, pancreas, and kidney. An effort was made to insure a broad range of practice settings, geographic locations, and clinical experience. Each subcommittee used a consensus approach. Much of the discussion and consensus-forming took place through teleconferencing. The consensus decisions were reviewed and approved by the ASTS council.

**Data.** Data were provided in table form rather than on the standard worksheets. All operations were reported for the inpatient setting.

Two visit patterns were submitted for code 48999. One represented pancreas transplantation with or without recipient pancreatectomy; the other was pancreatectomy from cadaver donor. Both were used in the analysis.

## American Urological Association

**Process.** The American Urological Association (AUA) assembled a consensus panel consisting of three practicing urologists, representing both academic and non-academic settings and different regions of the country. They met twice to develop the visit patterns for every urological surgical operation in the *1988* CPT-4 code book.

**Data.** Inpatient was defined as patients admitted to the hospital for a minimum of 24 hours, which would include an overnight confinement.

The AUA's interpretation of duration of postoperative office visits represents estimates of times spent by the primary surgeon as well as by his/her staff of nurses, physician assistants, clinical staff etc.

The specialty did not specify the setting on the worksheets, but indicated that the visit pattern reflects an inpatient setting when the percentage done inpatient is greater than 0. All other visit patterns indicated outpatient operations.

The medical records specialist who reviewed all data sets designated some operations as staged (beyond those designated by the specialty society).

## The Society for Vascular Surgery

**Process.** A committee approach was used. The worksheets were first completed by the secretary and president of the Society for Vascular Surgery (SVS). These initial estimates were distributed to seven members of the Joint Council of the SVS and the North American Chapter of the International Society for Cardiovascular Surgery for review and revisions. This input was received by the two Society officers for review and incorporation into final worksheets.

**Data.** A number of operations were always performed as part of, or subsequent to, another operation. In these cases, the visit pattern for the second operation supersedes that of the first.

# APPENDIX E

# FINAL LIST OF STARRED (NON-GLOBAL) CODES INCLUDED IN SAMPLE OF CODES

| CPT-4 CODE | DESCRIPTION |
|---|---|
| 10000 | I&D ONE SEBACEOUS CYST |
| 10003 | I&D EPITH INCL CYT-COMP |
| 10020 | I&D FURUNCLE |
| 10060 | I&D SKIN ABSCESS-SIMPLE |
| 10120 | SMPL I & REMOVAL SUBQ FB |
| 10140 | I&D HEMATOMA-SIMPLE |
| 10160 | PUNCT ASPIRAT'N SKIN LES |
| 11000 | DEBRID INF SKIN-10% B SU |
| 11050 | CURETTE ONE BENIGN LES'N |
| 11200 | EXC SKIN TAG MULTI- 1-15 |
| 11730 | AVUL NAIL PLATE SIMP-1 |
| 11900 | INTRALESION INJECTION-<8 |
| 11901 | INTRALESION INJECTION->7 |
| 12001 | SMP RP-AX,NK,SCLP-<2.5CM |
| 12002 | SMP RP-AX,SCLP-2.5-7.5CM |
| 12004 | SMP RP-AX,SCLP7.5-12.5CM |
| 12011 | SMP RP-FCE,MM- <2.5CM |
| 12013 | SMP RP-FCE,MM-2.5-5CM |
| 12031 | LY CL-SCLP,TRK- <2.5CM |
| 12032 | LY CL-SCLP,TRK-2.5-7.5CM |
| 12041 | LY CL-NK,GEN- <2.5CM |
| 12051 | LY CL-FACE,MM-<2.5CM |
| 17000 | DESTRCTN FACE LES-1 |
| 20650 | INSERT WIRE/PIN SK TRAC |
| 20670 | SUPERFIC IMPLANT REMOVAL |
| 28001 | I&D INF BURSA FOOT |
| 30200 | THERAPEUT TURBINAT INJEC |
| 30800 | SUPERFIC TURBINAT CAUTER |
| 30901 | CONTROL NOSE BL-SIMP-UNI |
| 30903 | CNTROL NOSE BL-CMPLX-UNI |
| 30905 | NOSE BL-POST PACK-INITL |
| 31000 | LAVAGE MAXLARY SINUS-UNI |

**Continued --**

| | |
|---|---|
| 43451 | BOUGI ESOPH DILAT-SBSQNT |
| 57410 | PELVIC EXAM UNDER ANESTH |
| 65205 | RMV FB EXT-CJUNCT SPFCAL |
| 65210 | RMV FB EXT-CJUNCT EMBEDD |
| 65222 | RMV FB-CORNEAL+SLIT LAMP |
| 67500 | RETROBULBAR INJ-MEDICINE |
| 67515 | INJ THERAPUTC TENONS CAP |
| 67810 | BIOPSY EYELID |
| 67825 | TRICHIAS RP W EPILATION |
| 67840 | EXC EYELID LES+SMP/NO CL |
| 68200 | SUBCONJUNCTIVAL INJECTN |
| 68800 | DILAT LACRIMAL PUNCTUM |
| 68840 | PROBE LACRIMAL CANALICULI |

# APPENDIX F

# PREPARATION OF THE LINKED BMAD/MEDPAR FILE

The initial BMAD file, containing 601,773 observations, was drawn using the following selection criteria:

- Type of Service = 2 (surgery)
- MTUS Indicator = 3 (services)
- Process Indicator =/ R (adjustment)
- Allowed charges > 0
- No Initial Modifier of 54, 55, 56, 62, 66, 80, 81, 82
- Physician Specialty Code = 1-41, 49, 70-75, 99
- Dates of Service from January 11, 1987 - October 1, 1987
- CPT-4 Code in the sample

Three months at the end of the year were excluded to ensure that no observations with subsequent operations during the 90 day postoperative window appeared. A ten-day preoperative window was specified for the same reason.

The following exclusions (in the following order) were made to the initial data set to result in a final file containing 184,573 observations:

- 23,068 duplicate observations were deleted from the file based on a match of HIC number, service dates, procedure code, and provider ID number.

- 84,027 observations were excluded because a secondary procedure code appeared without the associated primary code. (Secondary codes are defined as codes that are always performed in conjunction with another CPT-code defined operation.)

- 258,882 observations were excluded because a second operation during the 90 day postoperative window was found on the BMAD file. The universe of operations was defined as all codes submitted by one or more specialty societies as a global procedure and any other non-starred CPT codes in the 10000 - 69999 range.

- 12,187 cases were deleted because an additional operation was found on the MEDPAR file during the 90 day postoperative window.

- 35,223 observations were excluded because a subsequent hospitalization occurred in the 90 days following the initial surgery.

- 3,808 observations were eliminated because the beneficiary died within 90 days of surgery or did not have Part B coverage during the entire 90 day period.

While numerous deletions were made from the file, the edits described above insured that episodes represented complete care for the operations in question and were not biased by misleading data or unusual medical or surgical complications.

## OTHER EDITS TO THE FILE

**Visits** (shown on the BMAD file) with a type of service of 2 (surgery), [1], or 5 (diagnostic lab) were deleted from the counts.

For 1,860 episodes, where the surgical setting (ambulatory versus outpatient) specified on the BMAD file was in conflict with the existence or lack thereof of a MEDPAR record (MEDPAR only contains inpatient data), the following rules were adopted (in the following order):

- if all specialty societies specified that the operation was performed on an inpatient basis at least 80 percent of the time, the setting was coded as inpatient;

- if all specialty societies specified the operation was performed on an outpatient basis at least 80 percent of the time, the setting was coded as outpatient;

- if a MEDPAR record existed, the operation was assigned an inpatient setting; and

- if a MEDPAR record was missing but BMAD identified the surgery as inpatient, each observation was separately analyzed and assigned a setting based on other episode data for the same or similar codes. For example, if the majority of other observations for the code were inpatient, it was coded as inpatient.

---

[1] The BMAD files classify all claims according to type of service. A specification of "surgery" as the type of service indicates only the surgery itself, not any postoperative care associated with it.

The BMAD miles, times, units of service (MTUS) field was used as the source of visit counts. Since some claims contain multiple visits, the following edits were necessary:

- MTUS was limited to a maximum of one visit per day for outpatient visits and for hospital service periods occurring more than 5 days following surgery; and

- MTUS was limited to a maximum of 3 visits per day for hospital visits within 5 days of surgery.

# APPENDIX G

# SAMPLE SURVEY BOOKLET

# Physician Survey
# of
# Postoperative Visit Patterns

## GENERAL SURGERY

Conducted for the

Physician Payment Review Commission
Washington,D.C.

by
Abt Associates Inc.
55 Wheeler Street
Cambridge, MA 02138

Please Return This Survey

No Later Than

October 24, 1990

# Before You Begin

We want to be sure that responses to this survey are representative of fully trained, non-federal, general surgeons in active practice. Please read the following statements and check all that apply.

Check All
That Apply

☐ I am **not** a general surgeon.

☐ I am involved in activities directly related to patient care **less than 20** hours per week on average.

☐ I am currently a **resident** or **fellow**.

☐ My primary employer is the **federal government**.

☐ I am a **foreign medical graduate** with a **temporary** license to practice medicine in the United States.

If you checked **any** of the above statements, you do not need to complete the remainder of this survey. Instead, please return this questionnaire in the enclosed postage-paid envelope to:

Abt Associates Inc.
55 Wheeler Street
Cambridge, MA 02138

If none of the above statements apply to you, please read the general instructions on the following page and complete this survey. Please return your completed questionnaire in the enclosed postage-paid envelope no later than **October 24, 1990.**

If you have any questions about this survey, please call David Sheehy or Monica Noether toll-free Monday-Friday 9:00 a.m. - 5:00 p.m. (ET) at 800-343-3019. (In Massachusetts, call collect at 617-492-7100.)

# General Instructions

As described in the opening letter, the surgical global service policy developed by the Physician Payment Review Commission includes **90 days** of postoperative institutional and office visits provided by the **principal surgeon.** In order to assign relative values that accurately reflect these visits, the Commission must determine the pattern of postoperative care that applies to the **typical patient** undergoing each operation. The typical patient is the most frequently encountered type of patient undergoing each operation. Thus when you complete this survey, you should not think only of the elderly patient, the most difficult, complication-prone patient, nor the easiest, complication-free patient.

The survey asks you about visit patterns for several commonly performed operations in your field. These patterns were developed using all available sources of objective data as well as input from the American College of Surgeons. We ask that you review the visit patterns for each of the operations listed. We are interested in learning if the assigned visit patterns are **reasonable.** Please keep in mind that we want you to think about:

- the typical patient, all ages, undergoing the operation;
- the number of visits that would be provided by you, as the principal surgeon;
- postoperative care as you currently provide it.

For each inpatient operation, the survey presents the postoperative visit pattern in an exhibit similar to the one shown on the right hand page.

Each operation is defined in terms of its CPT code and setting.

Always answer this first question which asks you about the number of times you have performed the operation listed on the top line of the page or "closely related" operations over the past year. A closely related operation is one that requires the same set of skills as the operation in question; for example, procedures closely related to a total abdominal colectomy with proctectomy include all total colectomies with or without proctectomy.

If you have not performed the specified operation or closely-related operations within the last year, record "0" (zero) for this first question.

If you do not feel qualified to assess the information provided on an operation included in the survey because you have rarely performed the operation, please indicate this in the box provided beneath the first question. If you check this box, you do not need to complete the rest of the page. Instead, please skip to the next page.

If you do not check the box, we would like you to review the visit pattern shown in the grid for reasonableness. In reviewing each dimension you should check the box in column 1 if you agree with the value; otherwise please provide your own estimate in column 2. Fill in only one column for each dimension.

For the first dimension, we ask you to review the length of stay, which includes the total number of nights the patient spends in the hospital, both before and after surgery. The value is for the typical patient undergoing the operation.

We next ask you to review the number of postoperative hospital and office visits typically provided by the principal surgeon in the 90 days following surgery and the average duration of these visits. Note that the number of hospital visits includes both the recovery room and all other hospital visits.

Duration of hospital visits is measured separately for recovery room and all other hospital visits. When you consider the duration of recovery room visits think of the time you spend reviewing the chart, seeing the patient, writing the operative note and orders, and talking with the nursing and house staff. When you consider the duration of all other hospital visits think of the time you spend on the patient's floor (seeing the patient, reviewing the chart, writing orders, and talking with the nursing and house staff).

When you consider the duration of office visits, think of the time that you, the principal surgeon, spend face-to-face with the patient.

For each outpatient operation (i.e., an operation not involving an overnight hospital stay) in the survey we follow the same approach as described above, except that we ask only about the duration of the recovery room visit and the number and average duration of office visits. If no recovery room visit is typically involved in this operation, then the duration should be indicated as "0".

**Procedure Name:** Tracheostomy, planned (separate procedure);

**CPT Code:** 31600 9-10/ ##

**Setting:** INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #10 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| Visit Pattern | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 15 | days | ☒ | 16/ | ____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 16 | visits | ☐ | 19/ | 15 visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☒ | 22/ | ____minutes | 23-25/ |
| All other hospital visits | 15 | min. | ☐ | 26/ | 20 minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 3 | visits | ☐ | 29/ | 2 visits | 30-31/ |
| Average Duration | 10 | min. | ☒ | 32/ | ____minutes | 33-34/ |

# EXAMPLE

**Procedure Name:** Split graft, trunk, scalp, arms, legs, hands, and/or feet
(except multiple digits); 100 sq cm or less,
or each one percent of body area of infants and children (except 15050)

**CPT Code:** 15100 9-10/ 1
**Setting:** INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)
# Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for **reasonableness**. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| **Visit Pattern** | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 5 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 6 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 20 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 20 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 4 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Mastectomy, modified radical, including axillary lymph nodes and pectoralis minor muscle, but leaving pectoral muscles

CPT Code: 19240 9-10/ 2

Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the **typical** patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Length of Stay** (Pre & Post-Op) | 5 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 5 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 3 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Tracheostomy, planned (separate procedure);

CPT Code: 31600 9-10/ 3
Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

   # Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

   Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| Visit Pattern | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 15 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 16 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 15 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 3 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

**Procedure Name:** Insertion of cannula for hemodialysis, other purpose; vein to vein

**CPT Code:** 36800 9-10/ 4
**Setting:** INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Length of Stay** (Pre & Post-Op) | 5 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 5 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 20 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | ____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 1 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 15 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Splenectomy (separate procedure);
total

CPT Code: 38100 9-10/ 5
Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐, and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| Visit Pattern | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 7 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 8 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Excision of parotid tumor or parotid gland; lateral lobe, with dissection and preservation of facial nerve

CPT Code: 42415 9-10/ 6
Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

   # Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the **typical** patient.

   Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 3 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 3 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 25 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 15 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 3 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

**Procedure Name:** Hemigastrectomy or distal subtotal gastrectomy including pyloroplasty, gastroduodenostomy or gastrojejunostomy; without vagotomy

**CPT Code:** 43630 9-10/ 7
**Setting:** INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)
# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| **Visit Pattern** | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 9 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 9 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Gastrostomy, temporary (tube, rubber or plastic) (separate procedure);

CPT Code: 43830 9-10/ 8
Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)
# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| **Length of Stay** (Pre & Post-Op) | 5 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 5 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 4 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 15 | min. | ☐ | 32/ | _____minutes | 33-34/ |

**Procedure Name:** Enterolysis (freeing of intestinal adhesion) for acute bowel obstruction (separate procedure)

**CPT Code:** 44005 9-10/ 9
**Setting:** INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)
   # Times in last year #_____ 12-14/

| If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. | 15/ |
|---|---|

2. Please review the visit pattern shown below for the typical patient.

   Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| Length of Stay (Pre & Post-Op) | 8 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 9 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Enterectomy, resection of small intestine; with anastomosis

CPT Code: 44120 9-10/ 10

Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

   # Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

   Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

FILL IN ONLY ONE COLUMN FOR EACH DIMENSION

| Visit Pattern | | | Column 1<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Length of Stay** (Pre & Post-Op) | 11 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 11 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 20 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

**Procedure Name:** Colectomy, partial;
with coloproctostomy (low pelvic anastomosis)

**CPT Code:** 44145 9-10/ 11
**Setting:** INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| **Visit Pattern** | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 10 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 11 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Appendectomy;

CPT Code: 44950 9-10/ 12
Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| Visit Pattern | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 4 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 4 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 15 | min. | ☐ | 32/ | _____minutes | 33-34/ |

**Procedure Name:** Proctectomy; complete, combined abdominoperineal, with colostomy, one or two stages

**CPT Code:** 45110 9-10/ 13
**Setting:** INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the **typical** patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Length of Stay** (Pre & Post-Op) | 11 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 12 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 15 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 3 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Cholecystectomy;

CPT Code: 47600 9-10/ 14
Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the **typical** patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Length of Stay** (Pre & Post-Op) | 6 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 6 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 10 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 3 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

**Procedure Name:** Exploratory laparotomy, exploratory celiotomy with or without biopsy(s) (separate procedure)

**CPT Code:** 49000 9-10/ 15
**Setting:** INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Length of Stay** (Pre & Post-Op) | 6 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 7 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 30 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 15 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Repair inguinal hernia, age 5 or over;

CPT Code: 49505 9-10/ 16
Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)
# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| **Visit Pattern** | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 2 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 3 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 30 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 20 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Repair ventral (incisional) hernia (separate procedure);

CPT Code: 49560 9-10/ 17

Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| Length of Stay (Pre & Post-Op) | 3 | days | ☐ | 16/ | _____days | 17-18/ |
| Post-Op Hospital Visits (including the recovery room) | | | | | | |
| Number | 3 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 30 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 15 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| Post-Op Office Visits for 90 Days | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

Procedure Name: Total thyroid lobectomy, unilateral;

CPT Code: 60220 9-10/ 18

Setting: INPATIENT 11/ 1

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an inpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (length of stay, number of hospital visits, etc.) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| **Visit Pattern** | | | About Right | | If you do not agree, write in your own estimate | |
| **Length of Stay** (Pre & Post-Op) | 3 | days | ☐ | 16/ | _____days | 17-18/ |
| **Post-Op Hospital Visits** (including the recovery room) | | | | | | |
| Number | 4 | visits | ☐ | 19/ | _____visits | 20-21/ |
| Average Duration of . . . | | | | | | |
| Recovery Room visits | 10 | min. | ☐ | 22/ | _____minutes | 23-25/ |
| All other hospital visits | 15 | min. | ☐ | 26/ | _____minutes | 27-28/ |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 29/ | _____visits | 30-31/ |
| Average Duration | 10 | min. | ☐ | 32/ | _____minutes | 33-34/ |

**Procedure Name:** Incision and drainage of abscess (eg, carbuncle, suppurative hidradenitis, and other cutaneous or subcutaneous abscesses); complicated

**CPT Code:** 10061 9-10/ 19

**Setting:** OUTPATIENT 11/ 2

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an outpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (e.g., duration of recovery room visit) separately for **reasonableness**. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Recovery Room Visit** | | | | | | |
| Duration | 0 | min. | ☐ | 16/ | _____minutes | 17-19/ |
| (If no recovery room visit is typically involved in this operation, then the duration should be indicated as "0".) | | | | | | |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 3 | visits | ☐ | 20/ | _____visits | 21-22/ |
| Average Duration | 10 | min. | ☐ | 23/ | _____minutes | 24-25/ |

Procedure Name: Excision, other benign lesion (unless listed elsewhere), face, ears, eyelids, nose, lips, mucous membrane; lesion diameter 0.6 to 1.0 cm

CPT Code. 11441 9-10/ 20
Setting: OUTPATIENT 11/ 2

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an outpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (e.g., duration of recovery room visit) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| Visit Pattern | | | About Right | | If you do not agree, write in your own estimate | |
| **Recovery Room Visit** | | | | | | |
| Duration | 0 | min. | ☐ | 16/ | _____minutes | 17-19/ |
| (If no recovery room visit is typically involved in this operation, then the duration should be indicated as "0".) | | | | | | |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 20/ | _____visits | 21-22/ |
| Average Duration | 10 | min. | ☐ | 23/ | _____minutes | 24-25/ |

**Procedure Name:** Excision of nail and nail matrix, partial or complete, (eg, ingrown or deformed nail) for permanent removal;

**CPT Code:** 11750 9-10/ 21

**Setting:** OUTPATIENT 11/ 2

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an outpatient setting? (If none, write in "0" [zero].)

   # Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

   Review each dimension (e.g., duration of recovery room visit) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Recovery Room Visit** | | | | | | |
| Duration | 0 | min. | ☐ | 16/ | _____minutes | 17-19/ |
| (If no recovery room visit is typically involved in this operation, then the duration should be indicated as "0".) | | | | | | |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 20/ | _____visits | 21-22/ |
| Average Duration | 10 | min. | ☐ | 23/ | _____minutes | 24-25/ |

Procedure Name: Repair, complex, forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands and/or feet; 2.6 cm to 7.5 cm

CPT Code: 13132 9-10/ 22
Setting: OUTPATIENT 11/ 2

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an outpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (e.g., duration of recovery room visit) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| **Recovery Room Visit** | | | | | | |
| Duration | 0 | min. | ☐ | 16/ | _____minutes | 17-19/ |
| (If no recovery room visit is typically involved in this operation, then the duration should be indicated as "0".) | | | | | | |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 20/ | _____visits | 21-22/ |
| Average Duration | 10 | min. | ☐ | 23/ | _____minutes | 24-25/ |

**Procedure Name:** Adjacent tissue transfer or rearrangement, eyelids, nose, ears and/or lips; defect 10 sq cm or less

**CPT Code:** 14060 9-10/ 23

**Setting:** OUTPATIENT 11/ 2

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an outpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (e.g., duration of recovery room visit) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| Visit Pattern | | | Column 1<br>FILL IN ONLY ONE COLUMN FOR EACH DIMENSION<br>About Right | | Column 2<br>If you do not agree, write in your own estimate | |
|---|---|---|---|---|---|---|
| **Recovery Room Visit** | | | | | | |
| Duration | 0 | min. | ☐ | 16/ | _____minutes | 17-19/ |
| (If no recovery room visit is typically involved in this operation, then the duration should be indicated as "0".) | | | | | | |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 20/ | _____visits | 21-22/ |
| Average Duration | 10 | min. | ☐ | 23/ | _____minutes | 24-25/ |

Procedure Name: Excision of cyst, fibroadenoma, or other benign or malignant tumor
aberrant breast tissue, duct lesion or nipple lesion (except
19140), male or female, one or more lesions

CPT Code: 19120 9-10/ 24
Setting: OUTPATIENT 11/ 2

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an outpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

> If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (e.g., duration of recovery room visit) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| Visit Pattern | | | About Right | | If you do not agree, write in your own estimate | |
| **Recovery Room Visit** | | | | | | |
| Duration | 0 | min. | ☐ | 16/ | _____minutes | 17-19/ |
| (If no recovery room visit is typically involved in this operation, then the duration should be indicated as "0".) | | | | | | |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 20/ | _____visits | 21-22/ |
| Average Duration | 15 | min. | ☐ | 23/ | _____minutes | 24-25/ |

Procedure Name: Biopsy or excision of lymph node(s);
deep cervical node(s)

CPT Code: 38510 9-10/ 25
Setting: OUTPATIENT 11/ 2

1. During this past year, approximately how many times did you perform this operation or a closely related operation in an outpatient setting? (If none, write in "0" [zero].)

# Times in last year #_____ 12-14/

If you do not feel sufficiently experienced with the above-named procedure to assess its visit pattern, check this box ☐ , and go on to the next page. 15/

2. Please review the visit pattern shown below for the typical patient.

Review each dimension (e.g., duration of recovery room visit) separately for reasonableness. Check the "About Right" box in column 1 if you agree with it, or write in your own value for that dimension in column 2. (When entering your own values, do not use ranges; give us your single best estimate.)

| | | | Column 1 | | Column 2 | |
|---|---|---|---|---|---|---|
| | | | FILL IN ONLY ONE COLUMN FOR EACH DIMENSION | | | |
| Visit Pattern | | | About Right | | If you do not agree, write in your own estimate | |
| **Recovery Room Visit** | | | | | | |
| Duration | 10 | min. | ☐ | 16/ | _____minutes | 17-19/ |
| (If no recovery room visit is typically involved in this operation, then the duration should be indicated as "0".) | | | | | | |
| **Post-Op Office Visits for 90 Days** | | | | | | |
| Number | 2 | visits | ☐ | 20/ | _____visits | 21-22/ |
| Average Duration | 10 | min. | ☐ | 23/ | _____minutes | 24-25/ |

# We Would Like To Learn More About You and Your Practice

We are requesting some information about you and your practice in order to be able to describe our sample and compare its characteristics with those of your specialty as a whole. Please remember that all information on the survey will be kept confidential; responses will not be reported for individual surgeons. 9-10/35

## Board Certification Information

A. Indicate the specialties in which you are board-certified or have completed certified specialty training.

| Specialty | | Board Certified | | Completed Certified Specialty Training | |
|---|---|---|---|---|---|
| ______________________ | 12-13/ | ☐ | 14/ | ☐ | 15/ |
| ______________________ | 16-17/ | ☐ | 18/ | ☐ | 19/ |
| ______________________ | 20-21/ | ☐ | 22/ | ☐ | 23/ |

B. Please list all specialties and sub-specialties in which you have extensive clinical experience.

______________________________ 24-25/

______________________________ 26-27/

______________________________ 28-29/

## Hospital Information

C. Number of beds in hospital where you perform the majority of your surgeries: 30/

1 ☐ Fewer than 100
2 ☐ 100-300
3 ☐ 301-500
4 ☐ more than 500

D. Indicate whether the hospital where you perform the majority of your surgeries has a residency program in:

| | | | |
|---|---|---|---|
| General Surgery | 1 ☐ yes | 2 ☐ no | 31/ |
| Other specialties | 1 ☐ yes | 2 ☐ no | 32/ |

**Practice Information**

E. Indicate your primary mode of practice.

1 ☐ Solo practice 33/
2 ☐ Single specialty group practice 34/
3 ☐ Multi-specialty group practice 35/
4 ☐ University-based
5 ☐ HMO
6 ☐ Other (please specify)________________________

F. Indicate how you receive the majority of your compensation for practicing medicine.

1 ☐ Fee-for-service 36/
2 ☐ Salary 37/
3 ☐ Capitation 38/
4 ☐ Combination fee-for-service and salary
5 ☐ Other (please specify)________________________

Thank you for completing this survey. Please take a moment to review it for accuracy and completeness. Mail in the enclosed postage-paid envelope to:

**Physician Reimbursement Data**
Abt Associates Inc.
55 Wheeler Street
Cambridge, MA 02138

# APPENDIX H

# PHYSICIAN SURVEY INTRODUCTORY LETTERS

PHYSICIAN PAYMENT REVIEW COMMISSION
2120 L Street, NW • Suite 510
Washington, DC 20037
(202) 653-7220 FAX (202) 653-7238

Philip R. Lee, M.D
Chairman
Paul B. Ginsburg, Ph.D.
Executive Director

October 5, 1990

Dear Dr. __________:

In a few days you will be receiving a questionnaire in the mail that will help the Physician Payment Review Commission establish accurate and equitable payment rates for surgical global services under the newly enacted Medicare Fee Schedule. Surgical specialty societies, including the --- have been working with the Commission for over two years on this project. We are now asking you to participate in the final phase of this project: a survey that will provide the Commission with direct input from actively practicing surgeons.

The survey materials, which will arrive shortly in a distinctive envelope, will include a letter describing the Commission's work on surgical global services and a questionnaire that asks you to consider the patterns of postoperative visits for selected operations in your area of specialization. The questionnaire should take you no more than 30 minutes to complete.

I encourage you to participate in this important survey. Your input is crucial to improving the accuracy of surgical payments under the Medicare Fee Schedule.

Sincerely,

Philip R. Lee

Philip R. Lee, M.D.
Chairman

PHYSICIAN PAYMENT REVIEW COMMISSION
2120 L Street, NW • Suite 510
Washington, DC 20037
(202) 653-7220 FAX (202) 653-7238

Philip R. Lee, M.D.
Chairman
Paul B. Ginsburg, Ph.D.
Executive Director

October 9, 1990

Dear Dr. __________:

The Physician Payment Review Commission is asking for your help with a project that will affect Medicare payment for surgical services. The Commission was established by Congress in 1986 to advise it on reforms for paying physicians under the Medicare program and routinely consults with members of the physician community, often through specialty societies, in the development of payment policy. We are now seeking input from actively practicing surgeons to help us establish accurate and equitable payment rates for surgical services under the new resource-based Medicare Fee Schedule.

As you know, payment for surgical services is made on the basis of a global fee that is intended to compensate the surgeon for preoperative, intraoperative, and postoperative care. Currently, there are 44 different global service definitions used by Medicare carriers in different parts of the country. These definitions vary substantially in terms of the component services that are included in global fees. Payment under the customary, prevailing, and reasonable (CPR) system currently used by Medicare can account for some of the variation because it is based, in part, on historical fees that reflect surgical billing practices within each geographic area. But under the new Medicare Fee Schedule, which will be implemented beginning in January 1992, only one national relative value will be assigned to each surgical CPT code. Payment based on this value will be equitable only if it applies to a uniform package of component services.

In late 1988, the Commission convened a consensus panel, made up of surgeons and carrier representatives, to develop a uniform surgical global service policy. The panel reached unanimous agreement on a policy that includes:

- all preoperative hospital visits (excluding the consultation) provided by the principal surgeon on the day before and day of surgery;
- all usual and necessary intraoperative services; and

- all institutional and outpatient visits provided by the principal surgeon during the 90 days following the primary operation (unless the visit is for a problem unrelated to the diagnosis for which surgery was performed).

The global service package specified by the Health Care Financing Administration (HCFA) in its recently released Model Fee Schedule for Physician's Services under Medicare is very similar to that developed by the Commission.

In the upcoming months, the Commission will use its policy to assign relative values to all surgical operations. Each relative value will reflect the care provided to the **typical** patient (all ages) by the **principal** surgeon during the 90 day timeframe. To assist us in this work, the Commission gathered information from objective sources, such as Medicare hospital and physician claims files, large multi-specialty group practices, the National Ambulatory Medical Care Survey, and the National Hospital Discharge Survey. In addition, 13 surgical specialty societies, including the -- provided the Commission with their estimates of the pre- and postoperative visits for each surgical CPT code in their respective fields. Using all available sources of data, the Commission has made preliminary determinations of the visit patterns for several hundred operations. **We are now asking actively practicing physicians to review these visit patterns and to suggest refinements based on their professional judgement.**

The enclosed survey asks you to consider the postoperative visit pattern for approximately 20 operations in your area of specialization. We are interested in learning if the patterns are **reasonable**, reflecting your experience in clinical practice. The patterns of postoperative care presented are intended to reflect current practice and we ask that you keep this in mind when completing the forms.

Based on our pretest results, it should take you approximately 20-30 minutes to complete the entire questionnaire. To be included in the analysis, we must receive your completed questionnaire no later than **October 24th.**

On behalf of the Commission, I encourage you to participate in this survey. We have used the input of practicing physicians in much of our past work and intend to do the same with the development of relative values for surgical services. I hope you will take this opportunity to improve the accuracy of this important aspect of the Medicare Fee Schedule.

Sincerely,

Philip R. Lee

Philip R. Lee, M.D.
Chairman

# APPENDIX I

# SUMMARY OF PHYSICIAN SURVEY RESPONSES BY CPT CODE

DURATION, HOSP EXCEPT RR: SUMMARY OF DOCTOR SURVEY RESPONSES, BY
CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15100 | IN | 20 | 17.56 | 20.00 | 0.28 | 5.00 | 0.25 | 72 | |
| 2 | 15120 | IN | 20 | 18.99 | 20.00 | 0.23 | 0.00 | 0.00 | 114 | |
| 3 | 19240 | IN | 10 | 12.04 | 10.00 | 0.27 | 5.00 | 0.50 | 94 | |
| 4 | 19318 | IN | 15 | 18.19 | 15.00 | 0.38 | 5.00 | 0.33 | 124 | * |
| 5 | 20680 | IN | 20 | 19.21 | 20.00 | 0.29 | 0.00 | 0.00 | 143 | |
| 6 | 21200 | IN | 15 | 17.21 | 15.00 | 0.35 | 5.00 | 0.33 | 180 | |
| 7 | 21215 | IN | 15 | 17.00 | 15.00 | 0.68 | 0.00 | 0.00 | 18 | |
| 8 | 21240 | IN | 15 | 16.51 | 15.00 | 0.24 | 0.00 | 0.00 | 148 | |
| 9 | 21365 | IN | 15 | 15.20 | 15.00 | 0.21 | 0.00 | 0.00 | 98 | |
| 10 | 21455 | IN | 20 | 18.82 | 20.00 | 0.24 | 0.00 | 0.00 | 235 | |
| 11 | 21470 | IN | 15 | 16.48 | 15.00 | 0.35 | 0.00 | 0.00 | 229 | |
| 12 | 22554 | IN | 15 | 15.18 | 15.00 | 0.22 | 0.00 | 0.00 | 127 | |
| 13 | 23420 | IN | 15 | 14.12 | 15.00 | 0.17 | 0.00 | 0.00 | 94 | |
| 14 | 25611 | IN | 15 | 13.45 | 15.00 | 0.26 | 0.00 | 0.00 | 92 | |
| 15 | 26951 | IN | 15 | 13.52 | 15.00 | 0.27 | 0.00 | 0.00 | 64 | |
| 16 | 27130 | IN | 15 | 14.53 | 15.00 | 0.17 | 0.00 | 0.00 | 95 | |
| 17 | 27244 | IN | 15 | 14.17 | 15.00 | 0.18 | 0.00 | 0.00 | 103 | |
| 18 | 27814 | IN | 15 | 14.85 | 15.00 | 0.18 | 0.00 | 0.00 | 135 | |
| 19 | 27880 | IN | 15 | 14.56 | 15.00 | 0.16 | 0.00 | 0.00 | 208 | |
| 20 | 28810 | IN | 15 | 15.07 | 15.00 | 0.26 | 0.00 | 0.00 | 263 | |
| 21 | 31365 | IN | 20 | 20.63 | 20.00 | 0.37 | 0.00 | 0.00 | 109 | |
| 22 | 31600 | IN | 15 | 14.34 | 15.00 | 0.24 | 0.00 | 0.00 | 178 | |
| 23 | 32480 | IN | 10 | 11.77 | 10.00 | 0.28 | 5.00 | 0.50 | 124 | |
| 24 | 32500 | IN | 10 | 11.35 | 10.00 | 0.25 | 1.50 | 0.15 | 124 | |
| 25 | 33207 | IN | 15 | 13.80 | 15.00 | 0.21 | 0.00 | 0.00 | 121 | |
| 26 | 33212 | IN | 15 | 13.68 | 15.00 | 0.23 | 0.00 | 0.00 | 108 | |
| 27 | 33405 | IN | 15 | 14.84 | 15.00 | 0.21 | 0.00 | 0.00 | 109 | |
| 28 | 33512 | IN | 15 | 14.83 | 15.00 | 0.20 | 0.00 | 0.00 | 108 | |
| 29 | 34201 | IN | 15 | 15.23 | 15.00 | 0.22 | 0.00 | 0.00 | 154 | |
| 30 | 35081 | IN | 20 | 19.02 | 20.00 | 0.20 | 0.00 | 0.00 | 269 | |
| 31 | 35301 | IN | 15 | 15.03 | 15.00 | 0.16 | 0.00 | 0.00 | 154 | |
| 32 | 35556 | IN | 15 | 15.38 | 15.00 | 0.20 | 0.00 | 0.00 | 156 | |
| 33 | 35566 | IN | 15 | 15.90 | 15.00 | 0.24 | 0.00 | 0.00 | 156 | |
| 34 | 35646 | IN | 20 | 19.03 | 20.00 | 0.17 | 0.00 | 0.00 | 158 | |
| 35 | 36800 | IN | 10 | 10.19 | 10.00 | 0.27 | 0.00 | 0.00 | 129 | |
| 36 | 36830 | IN | 10 | 10.28 | 10.00 | 0.29 | 0.00 | 0.00 | 126 | |
| 37 | 37620 | IN | 15 | 14.54 | 15.00 | 0.15 | 0.00 | 0.00 | 204 | |
| 38 | 38100 | IN | 10 | 10.95 | 10.00 | 0.25 | 0.00 | 0.00 | 86 | |
| 39 | 38720 | IN | 15 | 15.93 | 15.00 | 0.30 | 0.00 | 0.00 | 150 | |
| 40 | 39400 | IN | 15 | 14.26 | 15.00 | 0.21 | 0.00 | 0.00 | 119 | |
| 41 | 42415 | IN | 15 | 14.76 | 15.00 | 0.19 | 0.00 | 0.00 | 233 | |
| 42 | 42820 | IN | 15 | 14.87 | 15.00 | 0.19 | 0.00 | 0.00 | 115 | |
| 43 | 43630 | IN | 10 | 12.03 | 10.00 | 0.29 | 5.00 | 0.50 | 88 | |
| 44 | 43830 | IN | 10 | 10.99 | 10.00 | 0.24 | 0.00 | 0.00 | 86 | |
| 45 | 44005 | IN | 10 | 11.74 | 10.00 | 0.27 | 5.00 | 0.50 | 94 | |
| 46 | 44120 | IN | 20 | 17.15 | 20.00 | 0.24 | 5.00 | 0.25 | 93 | * |

Notes: "Pre-printed value" refers to the value that appeared on the physician survey.

* indicates that the survey mean differs from the preliminary value.

** indicates that the survey mean and median differ from the preliminary value.

### DURATION, HOSP EXCEPT RR: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES

### *** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 44145 | IN | 10 | 11.96 | 10.00 | 0.27 | 5.00 | 0.50 | 93 | |
| 48 | 44950 | IN | 10 | 10.89 | 10.00 | 0.23 | 0.00 | 0.00 | 96 | |
| 49 | 45110 | IN | 15 | 15.24 | 15.00 | 0.22 | 0.00 | 0.00 | 85 | |
| 50 | 47600 | IN | 10 | 11.21 | 10.00 | 0.25 | 0.00 | 0.00 | 95 | |
| 51 | 49000 | IN | 15 | 14.66 | 15.00 | 0.21 | 0.00 | 0.00 | 145 | |
| 52 | 49505 | IN | 20 | 15.03 | 15.00 | 0.39 | 10.00 | 0.67 | 145 | ** |
| 53 | 49560 | IN | 15 | 13.44 | 15.00 | 0.25 | 5.00 | 0.33 | 90 | |
| 54 | 50080 | IN | 20 | 18.94 | 20.00 | 0.29 | 0.00 | 0.00 | 71 | |
| 55 | 50230 | IN | 20 | 19.34 | 20.00 | 0.41 | 0.00 | 0.00 | 121 | |
| 56 | 50360 | IN | 15 | 16.67 | 15.00 | 0.15 | 5.00 | 0.33 | 6 | |
| 57 | 51040 | IN | 25 | 20.16 | 20.00 | 0.29 | 10.00 | 0.50 | 114 | ** |
| 58 | 51840 | IN | 20 | 18.57 | 20.00 | 0.31 | 5.00 | 0.25 | 105 | |
| 59 | 52240 | IN | 20 | 18.25 | 20.00 | 0.31 | 5.00 | 0.25 | 120 | |
| 60 | 52276 | IN | 30 | 21.38 | 20.00 | 0.41 | 15.00 | 0.75 | 112 | ** |
| 61 | 52336 | IN | 25 | 20.95 | 25.00 | 0.27 | 10.00 | 0.40 | 116 | * |
| 62 | 52500 | IN | 25 | 19.89 | 20.00 | 0.30 | 10.00 | 0.50 | 116 | ** |
| 63 | 52601 | IN | 25 | 21.43 | 25.00 | 0.29 | 10.00 | 0.40 | 122 | * |
| 64 | 54405 | IN | 25 | 22.01 | 25.00 | 0.28 | 6.25 | 0.25 | 82 | * |
| 65 | 54521 | IN | 35 | 25.64 | 25.00 | 0.39 | 20.00 | 0.80 | 117 | ** |
| 66 | 55821 | IN | 25 | 22.40 | 25.00 | 0.29 | 7.75 | 0.31 | 118 | * |
| 67 | 55845 | IN | 25 | 23.12 | 25.00 | 0.28 | 5.00 | 0.20 | 102 | |
| 68 | 57260 | IN | 10 | 10.58 | 10.00 | 0.24 | 0.00 | 0.00 | 88 | |
| 69 | 58150 | IN | 10 | 10.93 | 10.00 | 0.26 | 0.00 | 0.00 | 97 | |
| 70 | 58210 | IN | 20 | 19.17 | 20.00 | 0.10 | 0.00 | 0.00 | 12 | |
| 71 | 58265 | IN | 10 | 10.87 | 10.00 | 0.25 | 0.00 | 0.00 | 92 | |
| 72 | 58720 | IN | 10 | 10.74 | 10.00 | 0.26 | 0.00 | 0.00 | 94 | |
| 73 | 58740 | IN | 10 | 10.45 | 10.00 | 0.25 | 0.00 | 0.00 | 77 | |
| 74 | 58925 | IN | 10 | 10.63 | 10.00 | 0.23 | 0.00 | 0.00 | 96 | |
| 75 | 59120 | IN | 10 | 10.73 | 10.00 | 0.24 | 0.00 | 0.00 | 96 | |
| 76 | 59400 | IN | 10 | 10.43 | 10.00 | 0.28 | 0.00 | 0.00 | 88 | |
| 77 | 59510 | IN | 10 | 10.62 | 10.00 | 0.25 | 0.00 | 0.00 | 89 | |
| 78 | 59525 | IN | 10 | 11.15 | 10.00 | 0.26 | 0.00 | 0.00 | 52 | |
| 79 | 60220 | IN | 15 | 14.63 | 15.00 | 0.20 | 0.00 | 0.00 | 160 | |
| 80 | 61312 | IN | 20 | 19.00 | 20.00 | 0.23 | 0.00 | 0.00 | 110 | |
| 81 | 61460 | IN | 15 | 15.49 | 15.00 | 0.25 | 0.00 | 0.00 | 61 | |
| 82 | 61510 | IN | 15 | 15.73 | 15.00 | 0.23 | 0.00 | 0.00 | 110 | |
| 83 | 62223 | IN | 10 | 11.56 | 10.00 | 0.28 | 5.00 | 0.50 | 109 | |
| 84 | 62230 | IN | 15 | 15.14 | 15.00 | 0.22 | 0.00 | 0.00 | 104 | |
| 85 | 63017 | IN | 15 | 15.13 | 15.00 | 0.18 | 0.00 | 0.00 | 114 | |
| 86 | 63030 | IN | 15 | 14.98 | 15.00 | 0.19 | 0.00 | 0.00 | 178 | |
| 87 | 63042 | IN | 15 | 15.44 | 15.00 | 0.20 | 0.00 | 0.00 | 113 | |
| 88 | 64856 | IN | 15 | 14.83 | 15.00 | 0.18 | 0.00 | 0.00 | 59 | |
| 89 | 65750 | IN | 20 | 19.31 | 20.00 | 0.54 | 0.00 | 0.00 | 36 | |
| 90 | 67036 | IN | 30 | 28.64 | 30.00 | 0.25 | 0.00 | 0.00 | 22 | |
| 91 | 67107 | IN | 30 | 30.80 | 30.00 | 0.12 | 0.00 | 0.00 | 25 | |

Notes: "Pre-printed value" refers to the value that appeared on the physician survey.

* indicates that the survey mean differs from the preliminary value.

** indicates that the survey mean and median differ from the preliminary value.

## DURATION, RECOVERY ROOM: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
### *** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10061 | OUT | 0 | 3.92 | 0.00 | 1.58 | 10.00 | . | 197 | * |
| 2 | 11040 | OUT | 0 | 0.53 | 0.00 | 5.59 | 0.00 | . | 57 | |
| 3 | 11042 | OUT | 0 | 4.25 | 0.00 | 1.50 | 10.00 | . | 220 | * |
| 4 | 11100 | OUT | 0 | 2.19 | 0.00 | 2.04 | 0.00 | . | 269 | |
| 5 | 11402 | OUT | 0 | 1.08 | 0.00 | 3.24 | 0.00 | . | 253 | |
| 6 | 11441 | OUT | 0 | 1.63 | 0.00 | 2.51 | 0.00 | . | 360 | |
| 7 | 11602 | OUT | 0 | 0.31 | 0.00 | 5.13 | 0.00 | . | 132 | |
| 8 | 11642 | OUT | 0 | 2.55 | 0.00 | 1.97 | 1.00 | . | 335 | * |
| 9 | 11701 | OUT | 0 | 1.29 | 0.00 | 2.59 | 0.00 | . | 56 | |
| 10 | 11750 | OUT | 0 | 1.53 | 0.00 | 2.70 | 0.00 | . | 371 | |
| 11 | 12052 | OUT | 0 | 3.02 | 0.00 | 1.86 | 5.00 | . | 208 | * |
| 12 | 13132 | OUT | 0 | 3.30 | 0.00 | 2.00 | 5.00 | . | 366 | * |
| 13 | 13152 | OUT | 0 | 1.75 | 0.00 | 3.60 | 0.00 | . | 48 | |
| 14 | 14040 | OUT | 0 | 4.32 | 0.00 | 1.85 | 10.00 | . | 178 | * |
| 15 | 14060 | OUT | 0 | 4.29 | 0.00 | 1.55 | 10.00 | . | 256 | * |
| 16 | 15100 | IN | 20 | 16.21 | 20.00 | 0.36 | 10.00 | 0.50 | 72 | * |
| 17 | 15120 | IN | 20 | 18.56 | 20.00 | 0.24 | 0.00 | 0.00 | 118 | |
| 18 | 15260 | OUT | 0 | 1.39 | 0.00 | 3.32 | 0.00 | . | 41 | |
| 19 | 15822 | OUT | 0 | 2.50 | 0.00 | 1.85 | 7.50 | . | 8 | * |
| 20 | 15823 | OUT | 0 | 7.87 | 10.00 | 0.98 | 15.00 | 1.50 | 125 | ** |
| 21 | 17001 | OUT | 0 | 1.00 | 0.00 | 2.74 | 0.00 | . | 86 | |
| 22 | 17304 | OUT | 0 | 2.50 | 0.00 | 2.88 | 0.00 | . | 22 | * |
| 23 | 19120 | OUT | 0 | 5.84 | 0.00 | 1.51 | 10.00 | . | 92 | * |
| 24 | 19240 | IN | 10 | 11.30 | 10.00 | 0.33 | 0.00 | 0.00 | 94 | |
| 25 | 19318 | IN | 45 | 29.96 | 30.00 | 0.52 | 30.00 | 1.00 | 125 | ** |
| 26 | 20680 | IN | 5 | 8.61 | 5.00 | 0.68 | 5.00 | 1.00 | 153 | * |
| 27 | 21200 | IN | 25 | 22.88 | 25.00 | 0.27 | 1.25 | 0.05 | 182 | |
| 28 | 21200 | OUT | 25 | 26.85 | 25.00 | 0.21 | 0.00 | 0.00 | 27 | |
| 29 | 21215 | IN | 25 | 21.67 | 25.00 | 0.25 | 6.25 | 0.25 | 18 | * |
| 30 | 21240 | IN | 25 | 22.91 | 25.00 | 0.27 | 0.00 | 0.00 | 148 | |
| 31 | 21320 | OUT | 25 | 21.60 | 25.00 | 0.36 | 0.00 | 0.00 | 217 | * |
| 32 | 21365 | IN | 25 | 23.20 | 25.00 | 0.24 | 0.00 | 0.00 | 100 | |
| 33 | 21455 | IN | 20 | 19.51 | 20.00 | 0.24 | 0.00 | 0.00 | 236 | |
| 34 | 21470 | IN | 20 | 19.76 | 20.00 | 0.23 | 0.00 | 0.00 | 230 | |
| 35 | 22554 | IN | 20 | 19.44 | 20.00 | 0.33 | 0.00 | 0.00 | 126 | |
| 36 | 23420 | IN | 15 | 13.79 | 15.00 | 0.42 | 3.75 | 0.25 | 96 | |
| 37 | 25605 | OUT | 15 | 12.53 | 15.00 | 0.75 | 10.00 | 0.67 | 98 | |
| 38 | 25611 | IN | 15 | 13.54 | 15.00 | 0.37 | 3.75 | 0.25 | 92 | |
| 39 | 26055 | OUT | 15 | 12.55 | 15.00 | 0.53 | 5.00 | 0.33 | 95 | |
| 40 | 26160 | OUT | 0 | 6.47 | 5.00 | 0.93 | 10.00 | 2.00 | 90 | ** |
| 41 | 26951 | IN | 30 | 19.17 | 15.00 | 0.48 | 15.00 | 1.00 | 64 | ** |
| 42 | 27130 | IN | 15 | 15.42 | 15.00 | 0.40 | 0.00 | 0.00 | 96 | |
| 43 | 27244 | IN | 15 | 14.56 | 15.00 | 0.40 | 0.00 | 0.00 | 104 | |
| 44 | 27786 | OUT | 0 | 2.85 | 0.00 | 2.26 | 0.00 | . | 72 | * |
| 45 | 27814 | IN | 20 | 18.74 | 20.00 | 0.48 | 5.00 | 0.25 | 137 | |
| 46 | 27880 | IN | 15 | 14.67 | 15.00 | 0.33 | 0.00 | 0.00 | 208 | |

Notes: "Pre-printed value" refers to the value that appeared on the physician survey.

* indicates that the survey mean differs from the preliminary value.

** indicates that the survey mean and median differ from the preliminary value.

DURATION, RECOVERY ROOM: SUMMARY OF DOCTOR SURVEY RESPONSES, BY
CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 28080 | OUT | 0 | 8.26 | 10.00 | 1.10 | 15.00 | 1.50 | 231 | ** |
| 48 | 28108 | OUT | 0 | 5.57 | 0.00 | 1.55 | 10.00 | . | 117 | * |
| 49 | 28124 | OUT | 15 | 12.70 | 15.00 | 0.44 | 5.00 | 0.33 | 63 | |
| 50 | 28126 | OUT | 0 | 6.44 | 0.00 | 1.53 | 15.00 | . | 136 | * |
| 51 | 28153 | OUT | 0 | 6.87 | 3.50 | 1.30 | 10.00 | 2.86 | 224 | ** |
| 52 | 28160 | OUT | 0 | 6.69 | 0.00 | 1.47 | 15.00 | . | 139 | * |
| 53 | 28270 | OUT | 0 | 4.05 | 0.00 | 1.72 | 10.00 | . | 138 | * |
| 54 | 28285 | OUT | 0 | 7.42 | 0.00 | 1.37 | 15.00 | . | 137 | * |
| 55 | 28292 | OUT | 0 | 11.78 | 10.00 | 1.35 | 15.00 | 1.50 | 232 | ** |
| 56 | 28308 | OUT | 0 | 10.07 | 10.00 | 1.20 | 15.00 | 1.50 | 201 | ** |
| 57 | 28470 | OUT | 0 | 1.84 | 0.00 | 2.73 | 0.00 | . | 125 | |
| 58 | 28810 | IN | 20 | 17.40 | 20.00 | 0.32 | 5.00 | 0.25 | 266 | * |
| 59 | 29125 | OUT | 0 | 1.42 | 0.00 | 2.46 | 0.00 | . | 71 | |
| 60 | 29881 | OUT | 15 | 13.82 | 15.00 | 0.31 | 0.00 | 0.00 | 98 | |
| 61 | 30520 | OUT | 15 | 16.18 | 15.00 | 0.42 | 0.00 | 0.00 | 252 | |
| 62 | 31365 | IN | 30 | 29.40 | 30.00 | 0.25 | 0.00 | 0.00 | 109 | |
| 63 | 31600 | IN | 10 | 11.39 | 10.00 | 0.39 | 0.00 | 0.00 | 178 | |
| 64 | 32480 | IN | 25 | 23.11 | 25.00 | 0.26 | 0.00 | 0.00 | 127 | |
| 65 | 32500 | IN | 20 | 19.64 | 20.00 | 0.24 | 0.00 | 0.00 | 124 | |
| 66 | 33207 | IN | 15 | 14.27 | 15.00 | 0.32 | 0.00 | 0.00 | 123 | |
| 67 | 33212 | IN | 15 | 14.69 | 15.00 | 0.30 | 0.00 | 0.00 | 107 | |
| 68 | 33405 | IN | 50 | 43.21 | 50.00 | 0.36 | 20.00 | 0.40 | 107 | * |
| 69 | 33512 | IN | 50 | 44.13 | 50.00 | 0.34 | 20.00 | 0.40 | 110 | * |
| 70 | 34201 | IN | 45 | 33.08 | 30.00 | 0.40 | 25.00 | 0.83 | 155 | ** |
| 71 | 35081 | IN | 20 | 24.72 | 20.00 | 0.37 | 10.00 | 0.50 | 269 | * |
| 72 | 35301 | IN | 55 | 37.80 | 30.00 | 0.47 | 35.00 | 1.17 | 157 | ** |
| 73 | 35556 | IN | 60 | 38.98 | 30.00 | 0.47 | 40.00 | 1.33 | 156 | ** |
| 74 | 35566 | IN | 90 | 49.89 | 45.00 | 0.60 | 70.00 | 1.56 | 158 | ** |
| 75 | 35646 | IN | 20 | 25.61 | 20.00 | 0.44 | 10.00 | 0.50 | 157 | * |
| 76 | 36800 | IN | 20 | 17.17 | 20.00 | 0.33 | 8.75 | 0.44 | 128 | * |
| 77 | 36830 | IN | 20 | 17.98 | 20.00 | 0.31 | 5.00 | 0.25 | 125 | |
| 78 | 37620 | IN | 15 | 15.84 | 15.00 | 0.26 | 0.00 | 0.00 | 203 | |
| 79 | 38100 | IN | 10 | 11.37 | 10.00 | 0.36 | 0.00 | 0.00 | 89 | |
| 80 | 38510 | OUT | 10 | 9.56 | 10.00 | 0.48 | 0.00 | 0.00 | 91 | |
| 81 | 38720 | IN | 30 | 27.95 | 30.00 | 0.22 | 0.00 | 0.00 | 151 | |
| 82 | 39400 | IN | 15 | 15.38 | 15.00 | 0.21 | 0.00 | 0.00 | 118 | |
| 83 | 40500 | OUT | 5 | 7.55 | 5.00 | 0.73 | 5.00 | 1.00 | 146 | * |
| 84 | 42415 | IN | 25 | 22.14 | 25.00 | 0.26 | 5.00 | 0.20 | 234 | * |
| 85 | 42820 | IN | 20 | 17.92 | 20.00 | 0.26 | 5.00 | 0.25 | 120 | |
| 86 | 43630 | IN | 10 | 11.84 | 10.00 | 0.38 | 0.00 | 0.00 | 87 | |
| 87 | 43830 | IN | 10 | 10.74 | 10.00 | 0.30 | 0.00 | 0.00 | 88 | |
| 88 | 44005 | IN | 10 | 11.52 | 10.00 | 0.33 | 0.00 | 0.00 | 93 | |
| 89 | 44120 | IN | 10 | 12.01 | 10.00 | 0.37 | 5.00 | 0.50 | 92 | |
| 90 | 44145 | IN | 10 | 12.01 | 10.00 | 0.35 | 5.00 | 0.50 | 92 | |
| 91 | 44950 | IN | 10 | 11.17 | 10.00 | 0.30 | 0.00 | 0.00 | 94 | |
| 92 | 45110 | IN | 10 | 12.24 | 10.00 | 0.37 | 5.00 | 0.50 | 85 | |

Notes: "Pre-printed value" refers to the value that appeared on the physician survey.

* indicates that the survey mean differs from the preliminary value.

** indicates that the survey mean and median differ from the preliminary value.

DURATION, RECOVERY ROOM: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES

*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47600 | IN | 10 | 11.38 | 10.00 | 0.31 | 0.00 | 0.00 | 94 | |
| 94 | 49000 | IN | 30 | 23.21 | 30.00 | 0.40 | 15.00 | 0.50 | 145 | * |
| 95 | 49505 | IN | 30 | 20.37 | 20.00 | 0.48 | 20.00 | 1.00 | 147 | ** |
| 96 | 49560 | IN | 30 | 17.81 | 15.00 | 0.51 | 20.00 | 1.33 | 89 | ** |
| 97 | 50080 | IN | 55 | 45.74 | 55.00 | 0.31 | 25.00 | 0.45 | 74 | * |
| 98 | 50230 | IN | 30 | 30.50 | 30.00 | 0.33 | 0.00 | 0.00 | 121 | |
| 99 | 50360 | IN | 30 | 32.50 | 30.00 | 0.27 | 6.25 | 0.21 | 6 | * |
| 100 | 50590 | OUT | 55 | 46.01 | 55.00 | 0.37 | 25.00 | 0.45 | 99 | * |
| 101 | 51040 | IN | 55 | 38.59 | 30.00 | 0.41 | 25.00 | 0.83 | 112 | ** |
| 102 | 51840 | IN | 55 | 40.97 | 50.00 | 0.39 | 25.00 | 0.50 | 103 | ** |
| 103 | 52240 | IN | 55 | 40.88 | 50.00 | 0.38 | 25.00 | 0.50 | 120 | ** |
| 104 | 52276 | IN | 40 | 31.84 | 40.00 | 0.32 | 15.00 | 0.38 | 114 | * |
| 105 | 52336 | IN | 55 | 42.23 | 55.00 | 0.35 | 25.00 | 0.45 | 115 | * |
| 106 | 52500 | IN | 55 | 39.66 | 40.00 | 0.40 | 25.00 | 0.63 | 113 | ** |
| 107 | 52601 | IN | 40 | 37.52 | 40.00 | 0.29 | 5.00 | 0.13 | 122 | |
| 108 | 54161 | OUT | 25 | 23.63 | 25.00 | 0.31 | 0.00 | 0.00 | 126 | |
| 109 | 54405 | IN | 55 | 45.09 | 55.00 | 0.32 | 25.00 | 0.45 | 82 | * |
| 110 | 54521 | IN | 40 | 33.53 | 40.00 | 0.29 | 10.00 | 0.25 | 119 | * |
| 111 | 55040 | OUT | 40 | 34.06 | 40.00 | 0.31 | 10.00 | 0.25 | 124 | * |
| 112 | 55821 | IN | 55 | 44.90 | 55.00 | 0.34 | 25.00 | 0.45 | 119 | * |
| 113 | 55845 | IN | 55 | 47.09 | 55.00 | 0.30 | 15.00 | 0.27 | 103 | * |
| 114 | 57065 | OUT | 10 | 10.54 | 10.00 | 0.40 | 0.00 | 0.00 | 84 | |
| 115 | 57260 | IN | 10 | 11.18 | 10.00 | 0.39 | 0.00 | 0.00 | 88 | |
| 116 | 57520 | OUT | 10 | 10.03 | 10.00 | 0.38 | 0.00 | 0.00 | 95 | |
| 117 | 57700 | OUT | 10 | 10.83 | 10.00 | 0.35 | 0.00 | 0.00 | 72 | |
| 118 | 58120 | OUT | 10 | 10.05 | 10.00 | 0.33 | 0.00 | 0.00 | 98 | |
| 119 | 58150 | IN | 10 | 11.28 | 10.00 | 0.37 | 0.00 | 0.00 | 96 | |
| 120 | 58210 | IN | 30 | 25.83 | 30.00 | 0.30 | 11.25 | 0.38 | 12 | * |
| 121 | 58265 | IN | 10 | 11.48 | 10.00 | 0.36 | 0.00 | 0.00 | 91 | |
| 122 | 58600 | OUT | 10 | 10.16 | 10.00 | 0.31 | 0.00 | 0.00 | 91 | |
| 123 | 58720 | IN | 10 | 11.02 | 10.00 | 0.38 | 0.00 | 0.00 | 93 | |
| 124 | 58740 | IN | 10 | 11.10 | 10.00 | 0.39 | 0.00 | 0.00 | 77 | |
| 125 | 58925 | IN | 10 | 11.05 | 10.00 | 0.38 | 0.00 | 0.00 | 95 | |
| 126 | 58980 | OUT | 10 | 10.49 | 10.00 | 0.37 | 0.00 | 0.00 | 92 | |
| 127 | 59120 | IN | 10 | 11.45 | 10.00 | 0.38 | 0.00 | 0.00 | 95 | |
| 128 | 59400 | IN | 10 | 10.36 | 10.00 | 0.39 | 0.00 | 0.00 | 86 | |
| 129 | 59510 | IN | 10 | 11.05 | 10.00 | 0.33 | 0.00 | 0.00 | 86 | |
| 130 | 59525 | IN | 10 | 11.92 | 10.00 | 0.40 | 0.00 | 0.00 | 52 | |
| 131 | 59841 | OUT | 10 | 10.00 | 10.00 | 0.32 | 0.00 | 0.00 | 36 | |
| 132 | 60220 | IN | 10 | 12.33 | 10.00 | 0.39 | 5.00 | 0.50 | 159 | |
| 133 | 61312 | IN | 20 | 21.31 | 20.00 | 0.33 | 0.00 | 0.00 | 111 | |
| 134 | 61460 | IN | 20 | 20.74 | 20.00 | 0.37 | 0.00 | 0.00 | 61 | |
| 135 | 61510 | IN | 30 | 27.41 | 30.00 | 0.32 | 6.25 | 0.21 | 110 | * |
| 136 | 62223 | IN | 20 | 19.14 | 20.00 | 0.29 | 0.00 | 0.00 | 110 | |
| 137 | 62230 | IN | 15 | 16.38 | 15.00 | 0.39 | 0.00 | 0.00 | 105 | |
| 138 | 63017 | IN | 20 | 19.58 | 20.00 | 0.30 | 0.00 | 0.00 | 113 | |

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** indicates that the survey mean and median differ from the preliminary value.

## DURATION, RECOVERY ROOM: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES

*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 63030 | IN | 15 | 15.69 | 15.00 | 0.39 | 0.00 | 0.00 | 177 | |
| 140 | 63042 | IN | 20 | 19.62 | 20.00 | 0.30 | 0.00 | 0.00 | 114 | |
| 141 | 64721 | OUT | 15 | 14.29 | 15.00 | 0.43 | 0.00 | 0.00 | 211 | |
| 142 | 64856 | IN | 25 | 21.58 | 25.00 | 0.32 | 10.00 | 0.40 | 60 | * |
| 143 | 65420 | OUT | 5 | 7.12 | 5.00 | 0.88 | 5.00 | 1.00 | 113 | |
| 144 | 65750 | IN | 5 | 8.19 | 5.00 | 0.97 | 5.00 | 1.00 | 36 | * |
| 145 | 65855 | OUT | 20 | 13.64 | 20.00 | 0.88 | 20.00 | 1.00 | 107 | * |
| 146 | 66170 | OUT | 10 | 11.59 | 10.00 | 0.55 | 0.00 | 0.00 | 104 | |
| 147 | 66250 | OUT | 20 | 17.86 | 20.00 | 0.38 | 0.00 | 0.00 | 96 | |
| 148 | 66625 | OUT | 10 | 11.14 | 10.00 | 0.51 | 0.00 | 0.00 | 83 | |
| 149 | 66821 | OUT | 20 | 13.44 | 20.00 | 0.84 | 20.00 | 1.00 | 122 | * |
| 150 | 66984 | OUT | 10 | 12.21 | 10.00 | 0.54 | 5.00 | 0.50 | 123 | |
| 151 | 66985 | OUT | 10 | 12.03 | 10.00 | 0.60 | 5.00 | 0.50 | 115 | |
| 152 | 67036 | IN | 30 | 24.55 | 30.00 | 0.36 | 10.00 | 0.33 | 22 | * |
| 153 | 67107 | IN | 5 | 12.32 | 5.00 | 0.85 | 12.50 | 2.50 | 25 | * |
| 154 | 67145 | OUT | 30 | 15.96 | 20.00 | 0.88 | 30.00 | 1.50 | 72 | ** |
| 155 | 67228 | OUT | 20 | 11.60 | 15.00 | 0.93 | 20.00 | 1.33 | 65 | ** |
| 156 | 67800 | OUT | 0 | 1.89 | 0.00 | 2.03 | 0.00 | . | 122 | |
| 157 | 67904 | OUT | 10 | 11.81 | 10.00 | 0.47 | 2.50 | 0.25 | 149 | |
| 158 | 67917 | OUT | 5 | 7.63 | 5.00 | 0.78 | 5.00 | 1.00 | 104 | * |
| 159 | 67921 | OUT | 10 | 10.00 | 10.00 | . | 0.00 | 0.00 | 1 | |
| 160 | 68760 | OUT | 0 | 1.52 | 0.00 | 2.20 | 0.00 | . | 79 | |
| 161 | 69631 | OUT | 15 | 16.04 | 15.00 | 0.38 | 0.00 | 0.00 | 120 | |

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DURATION, OFFICE VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES

*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10061 | OUT | 10 | 11.27 | 10.00 | 0.27 | 0.00 | 0.00 | 205 | |
| 2 | 11040 | OUT | 10 | 12.25 | 10.00 | 0.29 | 5.00 | 0.50 | 61 | |
| 3 | 11042 | OUT | 10 | 11.36 | 10.00 | 0.26 | 0.00 | 0.00 | 234 | |
| 4 | 11100 | OUT | 10 | 10.54 | 10.00 | 0.19 | 0.00 | 0.00 | 284 | |
| 5 | 11402 | OUT | 10 | 10.50 | 10.00 | 0.28 | 0.00 | 0.00 | 270 | |
| 6 | 11441 | OUT | 10 | 10.64 | 10.00 | 0.24 | 0.00 | 0.00 | 381 | |
| 7 | 11602 | OUT | 10 | 10.96 | 10.00 | 0.33 | 0.00 | 0.00 | 138 | |
| 8 | 11642 | OUT | 10 | 11.39 | 10.00 | 0.32 | 0.00 | 0.00 | 365 | |
| 9 | 11701 | OUT | 10 | 10.16 | 10.00 | 0.12 | 0.00 | 0.00 | 62 | |
| 10 | 11750 | OUT | 10 | 11.07 | 10.00 | 0.31 | 0.00 | 0.00 | 388 | |
| 11 | 12052 | OUT | 10 | 11.56 | 10.00 | 0.36 | 2.75 | 0.27 | 230 | |
| 12 | 13132 | OUT | 10 | 11.86 | 10.00 | 0.34 | 5.00 | 0.50 | 387 | |
| 13 | 13152 | OUT | 10 | 12.20 | 10.00 | 0.60 | 5.00 | 0.50 | 51 | |
| 14 | 14040 | OUT | 10 | 12.03 | 10.00 | 0.40 | 5.00 | 0.50 | 187 | |
| 15 | 14060 | OUT | 10 | 11.90 | 10.00 | 0.36 | 5.00 | 0.50 | 277 | |
| 16 | 15100 | IN | 10 | 11.67 | 10.00 | 0.23 | 5.00 | 0.50 | 73 | |
| 17 | 15120 | IN | 10 | 12.45 | 10.00 | 0.34 | 5.00 | 0.50 | 120 | |
| 18 | 15260 | OUT | 10 | 11.45 | 10.00 | 0.22 | 5.00 | 0.50 | 44 | |
| 19 | 15822 | OUT | 10 | 10.00 | 10.00 | 0.00 | 0.00 | 0.00 | 6 | |
| 20 | 15823 | OUT | 10 | 11.92 | 10.00 | 0.28 | 5.00 | 0.50 | 130 | |
| 21 | 17001 | OUT | 5 | 6.23 | 5.00 | 0.47 | 0.00 | 0.00 | 96 | |
| 22 | 17304 | OUT | 5 | 9.77 | 10.00 | 0.46 | 6.25 | 0.63 | 22 | ** |
| 23 | 19120 | OUT | 15 | 14.57 | 15.00 | 0.20 | 0.00 | 0.00 | 92 | |
| 24 | 19240 | IN | 10 | 12.52 | 10.00 | 0.31 | 5.00 | 0.50 | 94 | * |
| 25 | 19318 | IN | 5 | 12.53 | 10.00 | 0.38 | 5.00 | 0.50 | 126 | ** |
| 26 | 20680 | IN | 10 | 11.34 | 10.00 | 0.27 | 0.00 | 0.00 | 152 | |
| 27 | 21200 | IN | 10 | 13.33 | 10.00 | 0.31 | 5.00 | 0.50 | 181 | * |
| 28 | 21200 | OUT | 10 | 14.81 | 15.00 | 0.38 | 10.00 | 0.67 | 27 | ** |
| 29 | 21215 | IN | 10 | 11.94 | 10.00 | 0.29 | 5.00 | 0.50 | 18 | |
| 30 | 21240 | IN | 10 | 14.20 | 15.00 | 0.33 | 5.00 | 0.33 | 148 | ** |
| 31 | 21320 | OUT | 10 | 11.28 | 10.00 | 0.25 | 0.00 | 0.00 | 217 | |
| 32 | 21365 | IN | 10 | 11.74 | 10.00 | 0.25 | 5.00 | 0.50 | 99 | |
| 33 | 21455 | IN | 10 | 12.36 | 10.00 | 0.44 | 5.00 | 0.50 | 233 | |
| 34 | 21470 | IN | 10 | 12.48 | 10.00 | 0.33 | 5.00 | 0.50 | 229 | |
| 35 | 22554 | IN | 10 | 15.02 | 15.00 | 0.38 | 8.75 | 0.58 | 128 | ** |
| 36 | 23420 | IN | 10 | 11.53 | 10.00 | 0.23 | 5.00 | 0.50 | 93 | |
| 37 | 25605 | OUT | 10 | 12.32 | 10.00 | 0.32 | 5.00 | 0.50 | 100 | |
| 38 | 25611 | IN | 10 | 11.57 | 10.00 | 0.30 | 2.00 | 0.20 | 99 | |
| 39 | 26055 | OUT | 10 | 10.21 | 10.00 | 0.17 | 0.00 | 0.00 | 97 | |
| 40 | 26160 | OUT | 5 | 7.98 | 10.00 | 0.38 | 5.00 | 0.50 | 93 | ** |
| 41 | 26951 | IN | 10 | 10.89 | 10.00 | 0.20 | 0.00 | 0.00 | 71 | |
| 42 | 27130 | IN | 10 | 12.78 | 10.00 | 0.30 | 5.00 | 0.50 | 95 | * |
| 43 | 27244 | IN | 10 | 11.66 | 10.00 | 0.29 | 2.00 | 0.20 | 103 | |
| 44 | 27786 | OUT | 10 | 14.88 | 15.00 | 0.32 | 5.75 | 0.38 | 78 | ** |
| 45 | 27814 | IN | 10 | 14.20 | 15.00 | 0.38 | 5.00 | 0.33 | 139 | ** |
| 46 | 27880 | IN | 15 | 15.45 | 15.00 | 0.18 | 0.00 | 0.00 | 206 | |

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## DURATION, OFFICE VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES

### *** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 28080 | OUT | 10 | 11.74 | 10.00 | 0.29 | 5.00 | 0.50 | 239 | |
| 48 | 28108 | OUT | 10 | 12.15 | 10.00 | 0.31 | 5.00 | 0.50 | 124 | |
| 49 | 28124 | OUT | 10 | 10.81 | 10.00 | 0.21 | 0.00 | 0.00 | 62 | |
| 50 | 28126 | OUT | 10 | 12.05 | 10.00 | 0.29 | 5.00 | 0.50 | 143 | |
| 51 | 28153 | OUT | 10 | 12.09 | 10.00 | 0.32 | 5.00 | 0.50 | 233 | |
| 52 | 28160 | OUT | 10 | 12.70 | 10.00 | 0.35 | 5.00 | 0.50 | 151 | * |
| 53 | 28270 | OUT | 10 | 11.51 | 10.00 | 0.27 | 5.00 | 0.50 | 154 | |
| 54 | 28285 | OUT | 10 | 12.63 | 10.00 | 0.32 | 5.00 | 0.50 | 151 | * |
| 55 | 28292 | OUT | 10 | 12.95 | 10.00 | 0.35 | 5.00 | 0.50 | 244 | * |
| 56 | 28308 | OUT | 10 | 12.84 | 10.00 | 0.35 | 5.00 | 0.50 | 210 | * |
| 57 | 28470 | OUT | 10 | 13.51 | 11.00 | 0.34 | 5.00 | 0.45 | 146 | * |
| 58 | 28810 | IN | 10 | 12.19 | 10.00 | 0.28 | 5.00 | 0.50 | 264 | |
| 59 | 29125 | OUT | 10 | 11.07 | 10.00 | 0.24 | 0.00 | 0.00 | 75 | |
| 60 | 29881 | OUT | 10 | 11.45 | 10.00 | 0.23 | 5.00 | 0.50 | 98 | |
| 61 | 30520 | OUT | 10 | 12.05 | 10.00 | 0.30 | 5.00 | 0.50 | 251 | |
| 62 | 31365 | IN | 20 | 20.32 | 20.00 | 0.17 | 0.00 | 0.00 | 110 | |
| 63 | 31600 | IN | 10 | 11.03 | 10.00 | 0.29 | 0.00 | 0.00 | 174 | |
| 64 | 32480 | IN | 15 | 16.30 | 15.00 | 0.25 | 0.00 | 0.00 | 123 | |
| 65 | 32500 | IN | 10 | 13.19 | 10.00 | 0.36 | 5.00 | 0.50 | 119 | * |
| 66 | 33207 | IN | 10 | 12.56 | 10.00 | 0.35 | 5.00 | 0.50 | 117 | * |
| 67 | 33212 | IN | 10 | 11.80 | 10.00 | 0.30 | 5.00 | 0.50 | 101 | |
| 68 | 33405 | IN | 15 | 16.51 | 15.00 | 0.21 | 0.00 | 0.00 | 106 | |
| 69 | 33512 | IN | 15 | 16.57 | 15.00 | 0.23 | 0.00 | 0.00 | 108 | |
| 70 | 34201 | IN | 20 | 18.88 | 20.00 | 0.19 | 0.00 | 0.00 | 156 | |
| 71 | 35081 | IN | 15 | 16.32 | 15.00 | 0.23 | 0.00 | 0.00 | 265 | |
| 72 | 35301 | IN | 15 | 15.35 | 15.00 | 0.16 | 0.00 | 0.00 | 155 | |
| 73 | 35556 | IN | 20 | 19.66 | 20.00 | 0.17 | 0.00 | 0.00 | 155 | |
| 74 | 35566 | IN | 15 | 16.58 | 15.00 | 0.23 | 0.00 | 0.00 | 156 | |
| 75 | 35646 | IN | 15 | 16.10 | 15.00 | 0.22 | 0.00 | 0.00 | 156 | |
| 76 | 36800 | IN | 15 | 14.69 | 15.00 | 0.23 | 0.00 | 0.00 | 127 | |
| 77 | 36830 | IN | 15 | 14.88 | 15.00 | 0.24 | 0.00 | 0.00 | 123 | |
| 78 | 37620 | IN | 15 | 15.16 | 15.00 | 0.17 | 0.00 | 0.00 | 201 | |
| 79 | 38100 | IN | 10 | 11.50 | 10.00 | 0.26 | 0.00 | 0.00 | 88 | |
| 80 | 38510 | OUT | 10 | 10.86 | 10.00 | 0.22 | 0.00 | 0.00 | 93 | |
| 81 | 38720 | IN | 10 | 12.13 | 10.00 | 0.31 | 5.00 | 0.50 | 148 | |
| 82 | 39400 | IN | 10 | 11.87 | 10.00 | 0.31 | 0.00 | 0.00 | 115 | |
| 83 | 40500 | OUT | 10 | 11.32 | 10.00 | 0.21 | 3.50 | 0.35 | 149 | |
| 84 | 42415 | IN | 10 | 11.22 | 10.00 | 0.24 | 0.00 | 0.00 | 234 | |
| 85 | 42820 | IN | 5 | 7.15 | 5.00 | 0.50 | 5.00 | 1.00 | 121 | |
| 86 | 43630 | IN | 10 | 12.36 | 10.00 | 0.26 | 5.00 | 0.50 | 89 | |
| 87 | 43830 | IN | 15 | 14.34 | 15.00 | 0.18 | 0.00 | 0.00 | 83 | |
| 88 | 44005 | IN | 10 | 11.28 | 10.00 | 0.22 | 0.00 | 0.00 | 94 | |
| 89 | 44120 | IN | 10 | 11.25 | 10.00 | 0.22 | 0.00 | 0.00 | 92 | |
| 90 | 44145 | IN | 10 | 11.90 | 10.00 | 0.29 | 5.00 | 0.50 | 92 | |
| 91 | 44950 | IN | 15 | 13.54 | 15.00 | 0.18 | 5.00 | 0.33 | 96 | |
| 92 | 45110 | IN | 10 | 12.15 | 10.00 | 0.27 | 5.00 | 0.50 | 86 | |

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DURATION, OFFICE VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY
CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47600 | IN | 10 | 11.22 | 10.00 | 0.21 | 1.25 | 0.13 | 94 | |
| 94 | 49000 | IN | 10 | 12.12 | 10.00 | 0.26 | 5.00 | 0.50 | 146 | |
| 95 | 49505 | IN | 10 | 11.25 | 10.00 | 0.24 | 0.00 | 0.00 | 154 | |
| 96 | 49560 | IN | 10 | 11.29 | 10.00 | 0.24 | 0.00 | 0.00 | 89 | |
| 97 | 50080 | IN | 15 | 16.03 | 15.00 | 0.19 | 0.00 | 0.00 | 73 | |
| 98 | 50230 | IN | 15 | 15.78 | 15.00 | 0.21 | 0.00 | 0.00 | 122 | |
| 99 | 50360 | IN | 15 | 17.50 | 15.00 | 0.24 | 6.25 | 0.42 | 6 | * |
| 100 | 50590 | OUT | 10 | 13.14 | 10.00 | 0.33 | 5.00 | 0.50 | 97 | * |
| 101 | 51040 | IN | 15 | 15.33 | 15.00 | 0.18 | 0.00 | 0.00 | 107 | |
| 102 | 51840 | IN | 15 | 15.82 | 15.00 | 0.21 | 0.00 | 0.00 | 98 | |
| 103 | 52240 | IN | 15 | 15.74 | 15.00 | 0.24 | 0.00 | 0.00 | 117 | |
| 104 | 52276 | IN | 10 | 12.90 | 10.00 | 0.32 | 5.00 | 0.50 | 107 | * |
| 105 | 52336 | IN | 15 | 15.48 | 15.00 | 0.19 | 0.00 | 0.00 | 115 | |
| 106 | 52500 | IN | 15 | 15.55 | 15.00 | 0.20 | 0.00 | 0.00 | 110 | |
| 107 | 52601 | IN | 10 | 12.92 | 10.00 | 0.33 | 5.00 | 0.50 | 120 | * |
| 108 | 54161 | OUT | 5 | 8.88 | 10.00 | 0.48 | 5.00 | 0.50 | 124 | ** |
| 109 | 54405 | IN | 15 | 16.75 | 15.00 | 0.26 | 5.00 | 0.33 | 80 | |
| 110 | 54521 | IN | 10 | 11.83 | 10.00 | 0.31 | 5.00 | 0.50 | 118 | |
| 111 | 55040 | OUT | 10 | 11.98 | 10.00 | 0.30 | 5.00 | 0.50 | 122 | |
| 112 | 55821 | IN | 10 | 13.55 | 10.00 | 0.35 | 5.00 | 0.50 | 117 | * |
| 113 | 55845 | IN | 10 | 15.00 | 15.00 | 0.38 | 10.00 | 0.67 | 106 | ** |
| 114 | 57065 | OUT | 10 | 10.98 | 10.00 | 0.24 | 0.00 | 0.00 | 82 | |
| 115 | 57260 | IN | 15 | 14.72 | 15.00 | 0.13 | 0.00 | 0.00 | 88 | |
| 116 | 57520 | OUT | 15 | 14.67 | 15.00 | 0.13 | 0.00 | 0.00 | 91 | |
| 117 | 57700 | OUT | 10 | 10.49 | 10.00 | 0.18 | 0.00 | 0.00 | 71 | |
| 118 | 58120 | OUT | 10 | 11.07 | 10.00 | 0.24 | 0.00 | 0.00 | 98 | |
| 119 | 58150 | IN | 15 | 14.95 | 15.00 | 0.17 | 0.00 | 0.00 | 93 | |
| 120 | 58210 | IN | 15 | 16.67 | 15.00 | 0.15 | 5.00 | 0.33 | 12 | |
| 121 | 58265 | IN | 15 | 14.51 | 15.00 | 0.18 | 0.00 | 0.00 | 90 | |
| 122 | 58600 | OUT | 15 | 14.67 | 15.00 | 0.11 | 0.00 | 0.00 | 91 | |
| 123 | 58720 | IN | 15 | 14.52 | 15.00 | 0.14 | 0.00 | 0.00 | 94 | |
| 124 | 58740 | IN | 15 | 14.49 | 15.00 | 0.13 | 0.00 | 0.00 | 78 | |
| 125 | 58925 | IN | 15 | 14.52 | 15.00 | 0.13 | 0.00 | 0.00 | 94 | |
| 126 | 58980 | OUT | 10 | 11.04 | 10.00 | 0.25 | 0.00 | 0.00 | 91 | |
| 127 | 59120 | IN | 15 | 14.68 | 15.00 | 0.13 | 0.00 | 0.00 | 93 | |
| 128 | 59400 | IN | 20 | 18.95 | 20.00 | 0.20 | 0.00 | 0.00 | 88 | |
| 129 | 59510 | IN | 15 | 15.18 | 15.00 | 0.15 | 0.00 | 0.00 | 85 | |
| 130 | 59525 | IN | 15 | 15.10 | 15.00 | 0.10 | 0.00 | 0.00 | 51 | |
| 131 | 59841 | OUT | 10 | 10.69 | 10.00 | 0.20 | 0.00 | 0.00 | 36 | |
| 132 | 60220 | IN | 10 | 11.62 | 10.00 | 0.27 | 5.00 | 0.50 | 159 | |
| 133 | 61312 | IN | 10 | 15.31 | 15.00 | 0.42 | 10.00 | 0.67 | 112 | ** |
| 134 | 61460 | IN | 15 | 17.50 | 15.00 | 0.35 | 0.00 | 0.00 | 60 | * |
| 135 | 61510 | IN | 15 | 18.21 | 15.00 | 0.32 | 5.00 | 0.33 | 109 | * |
| 136 | 62223 | IN | 15 | 16.68 | 15.00 | 0.32 | 0.00 | 0.00 | 110 | |
| 137 | 62230 | IN | 15 | 17.02 | 15.00 | 0.33 | 0.00 | 0.00 | 104 | |
| 138 | 63017 | IN | 15 | 17.23 | 15.00 | 0.28 | 5.00 | 0.33 | 110 | |

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* indicates that the survey mean differs from the preliminary value.

** indicates that the survey mean and median differ from the preliminary value.

## DURATION, OFFICE VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
### *** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 63030 | IN | 15 | 16.55 | 15.00 | 0.26 | 0.00 | 0.00 | 174 | |
| 140 | 63042 | IN | 15 | 17.19 | 15.00 | 0.30 | 0.00 | 0.00 | 114 | |
| 141 | 64721 | OUT | 10 | 11.60 | 10.00 | 0.31 | 0.00 | 0.00 | 211 | |
| 142 | 64856 | IN | 10 | 12.58 | 10.00 | 0.32 | 5.00 | 0.50 | 60 | * |
| 143 | 65420 | OUT | 20 | 18.12 | 20.00 | 0.19 | 5.00 | 0.25 | 113 | |
| 144 | 65750 | IN | 20 | 20.39 | 20.00 | 0.21 | 0.00 | 0.00 | 38 | |
| 145 | 65855 | OUT | 15 | 15.56 | 15.00 | 0.16 | 0.00 | 0.00 | 107 | |
| 146 | 66170 | OUT | 15 | 16.01 | 15.00 | 0.18 | 0.00 | 0.00 | 104 | |
| 147 | 66250 | OUT | 20 | 19.03 | 20.00 | 0.16 | 0.00 | 0.00 | 98 | |
| 148 | 66625 | OUT | 20 | 18.87 | 20.00 | 0.17 | 0.00 | 0.00 | 84 | |
| 149 | 66821 | OUT | 10 | 13.35 | 10.00 | 0.35 | 5.00 | 0.50 | 121 | * |
| 150 | 66984 | OUT | 15 | 16.42 | 15.00 | 0.18 | 5.00 | 0.33 | 123 | |
| 151 | 66985 | OUT | 15 | 16.26 | 15.00 | 0.16 | 0.00 | 0.00 | 115 | |
| 152 | 67036 | IN | 40 | 35.48 | 40.00 | 0.19 | 10.00 | 0.25 | 21 | * |
| 153 | 67107 | IN | 30 | 30.00 | 30.00 | 0.14 | 0.00 | 0.00 | 25 | |
| 154 | 67145 | OUT | 30 | 28.10 | 30.00 | 0.22 | 0.00 | 0.00 | 71 | |
| 155 | 67228 | OUT | 30 | 29.85 | 30.00 | 0.18 | 0.00 | 0.00 | 66 | |
| 156 | 67800 | OUT | 5 | 6.86 | 5.00 | 0.49 | 5.00 | 1.00 | 125 | |
| 157 | 67904 | OUT | 10 | 11.80 | 10.00 | 0.27 | 5.00 | 0.50 | 150 | |
| 158 | 67917 | OUT | 10 | 11.62 | 10.00 | 0.25 | 5.00 | 0.50 | 104 | |
| 159 | 67921 | OUT | 5 | 10.00 | 10.00 | . | 0.00 | 0.00 | 1 | ** |
| 160 | 68760 | OUT | 5 | 8.02 | 5.00 | 0.45 | 5.00 | 1.00 | 81 | * |
| 161 | 69631 | OUT | 15 | 15.64 | 15.00 | 0.21 | 0.00 | 0.00 | 118 | |

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** indicates that the survey mean and median differ from the preliminary value.

LENGTH OF STAY: SUMMARY OF DOCTOR SURVEY RESPONSES, BY
CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15100 | IN | 5 | 6.00 | 5.00 | 0.60 | 2.00 | 0.40 | 74 | * |
| 2 | 15120 | IN | 5 | 5.07 | 5.00 | 0.50 | 0.00 | 0.00 | 122 | |
| 3 | 19240 | IN | 5 | 4.55 | 5.00 | 0.28 | 1.00 | 0.20 | 95 | |
| 4 | 19318 | IN | 2 | 2.22 | 2.00 | 0.38 | 0.00 | 0.00 | 125 | |
| 5 | 20680 | IN | 1 | 1.10 | 1.00 | 0.36 | 0.00 | 0.00 | 155 | |
| 6 | 21200 | IN | 2 | 2.79 | 3.00 | 0.42 | 1.00 | 0.33 | 184 | ** |
| 7 | 21215 | IN | 3 | 4.44 | 4.00 | 0.33 | 2.00 | 0.50 | 18 | ** |
| 8 | 21240 | IN | 3 | 2.62 | 3.00 | 0.23 | 1.00 | 0.33 | 149 | |
| 9 | 21365 | IN | 3 | 3.32 | 3.00 | 0.34 | 1.00 | 0.33 | 98 | |
| 10 | 21455 | IN | 2 | 2.17 | 2.00 | 0.30 | 0.00 | 0.00 | 233 | |
| 11 | 21470 | IN | 3 | 3.34 | 3.00 | 0.25 | 1.00 | 0.33 | 230 | |
| 12 | 22554 | IN | 6 | 5.55 | 6.00 | 0.24 | 1.00 | 0.17 | 125 | |
| 13 | 23420 | IN | 3 | 3.16 | 3.00 | 0.24 | 0.00 | 0.00 | 97 | |
| 14 | 25611 | IN | 2 | 1.93 | 2.00 | 0.42 | 0.00 | 0.00 | 97 | |
| 15 | 26951 | IN | 2 | 1.71 | 2.00 | 0.44 | 1.00 | 0.50 | 69 | |
| 16 | 27130 | IN | 10 | 10.22 | 10.00 | 0.19 | 0.00 | 0.00 | 95 | |
| 17 | 27244 | IN | 10 | 10.83 | 10.00 | 0.31 | 0.00 | 0.00 | 103 | * |
| 18 | 27814 | IN | 4 | 4.14 | 4.00 | 0.23 | 0.00 | 0.00 | 136 | |
| 19 | 27880 | IN | 11 | 11.48 | 11.00 | 0.25 | 0.00 | 0.00 | 207 | |
| 20 | 28810 | IN | 6 | 6.77 | 6.00 | 0.38 | 1.00 | 0.17 | 270 | * |
| 21 | 31365 | IN | 11 | 11.47 | 11.00 | 0.16 | 1.00 | 0.09 | 110 | |
| 22 | 31600 | IN | 15 | 14.99 | 15.00 | 0.35 | 0.00 | 0.00 | 174 | |
| 23 | 32480 | IN | 9 | 8.95 | 9.00 | 0.12 | 0.00 | 0.00 | 127 | |
| 24 | 32500 | IN | 7 | 7.49 | 7.00 | 0.30 | 0.00 | 0.00 | 125 | |
| 25 | 33207 | IN | 5 | 4.30 | 5.00 | 0.27 | 2.00 | 0.40 | 124 | * |
| 26 | 33212 | IN | 2 | 2.50 | 2.00 | 0.63 | 0.50 | 0.25 | 109 | |
| 27 | 33405 | IN | 12 | 11.46 | 12.00 | 0.15 | 1.00 | 0.08 | 109 | * |
| 28 | 33512 | IN | 9 | 9.15 | 9.00 | 0.13 | 0.75 | 0.08 | 108 | |
| 29 | 34201 | IN | 8 | 8.21 | 8.00 | 0.25 | 0.00 | 0.00 | 156 | |
| 30 | 35081 | IN | 8 | 9.34 | 9.00 | 0.21 | 2.00 | 0.22 | 268 | ** |
| 31 | 35301 | IN | 5 | 4.58 | 5.00 | 0.25 | 1.00 | 0.20 | 158 | |
| 32 | 35556 | IN | 7 | 8.11 | 7.00 | 0.22 | 3.00 | 0.43 | 157 | * |
| 33 | 35566 | IN | 7 | 9.14 | 9.00 | 0.26 | 3.00 | 0.33 | 158 | ** |
| 34 | 35646 | IN | 9 | 9.21 | 9.00 | 0.17 | 1.00 | 0.11 | 158 | |
| 35 | 36800 | IN | 5 | 4.52 | 5.00 | 0.48 | 2.00 | 0.40 | 130 | |
| 36 | 36830 | IN | 5 | 4.15 | 5.00 | 0.44 | 2.00 | 0.40 | 126 | * |
| 37 | 37620 | IN | 9 | 8.52 | 9.00 | 0.26 | 0.00 | 0.00 | 204 | |
| 38 | 38100 | IN | 7 | 6.87 | 7.00 | 0.15 | 0.00 | 0.00 | 89 | |
| 39 | 38720 | IN | 6 | 6.06 | 6.00 | 0.22 | 0.00 | 0.00 | 148 | |
| 40 | 39400 | IN | 3 | 2.79 | 3.00 | 0.33 | 0.00 | 0.00 | 120 | |
| 41 | 42415 | IN | 3 | 3.07 | 3.00 | 0.24 | 0.00 | 0.00 | 233 | |
| 42 | 42820 | IN | 1 | 1.05 | 1.00 | 0.46 | 0.00 | 0.00 | 121 | |
| 43 | 43630 | IN | 9 | 8.61 | 9.00 | 0.15 | 1.00 | 0.11 | 88 | |
| 44 | 43830 | IN | 5 | 5.20 | 5.00 | 0.46 | 0.00 | 0.00 | 87 | |
| 45 | 44005 | IN | 8 | 7.96 | 8.00 | 0.18 | 0.00 | 0.00 | 93 | |
| 46 | 44120 | IN | 11 | 9.27 | 10.00 | 0.22 | 3.00 | 0.30 | 94 | ** |

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LENGTH OF STAY: SUMMARY OF DOCTOR SURVEY RESPONSES, BY
CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 44145 | IN | 10 | 9.46 | 10.00 | 0.17 | 2.00 | 0.20 | 93 | * |
| 48 | 44950 | IN | 4 | 3.61 | 4.00 | 0.28 | 1.00 | 0.25 | 94 | |
| 49 | 45110 | IN | 11 | 10.93 | 11.00 | 0.18 | 0.00 | 0.00 | 86 | |
| 50 | 47600 | IN | 6 | 4.61 | 5.00 | 0.29 | 2.00 | 0.40 | 95 | ** |
| 51 | 49000 | IN | 6 | 6.18 | 6.00 | 0.15 | 0.00 | 0.00 | 145 | |
| 52 | 49505 | IN | 2 | 1.59 | 2.00 | 0.57 | 1.00 | 0.50 | 156 | |
| 53 | 49560 | IN | 3 | 3.39 | 3.00 | 0.42 | 1.00 | 0.33 | 90 | |
| 54 | 50080 | IN | 7 | 5.95 | 7.00 | 0.26 | 2.00 | 0.29 | 75 | * |
| 55 | 50230 | IN | 8 | 7.80 | 8.00 | 0.10 | 0.00 | 0.00 | 124 | |
| 56 | 50360 | IN | 12 | 12.67 | 12.00 | 0.08 | 2.00 | 0.17 | 6 | * |
| 57 | 51040 | IN | 4 | 3.88 | 4.00 | 0.29 | 0.00 | 0.00 | 116 | |
| 58 | 51840 | IN | 6 | 5.71 | 6.00 | 0.18 | 1.00 | 0.17 | 106 | |
| 59 | 52240 | IN | 3 | 3.54 | 3.00 | 0.29 | 1.00 | 0.33 | 123 | * |
| 60 | 52276 | IN | 2 | 2.01 | 2.00 | 0.37 | 0.00 | 0.00 | 112 | |
| 61 | 52336 | IN | 3 | 3.02 | 3.00 | 0.32 | 0.00 | 0.00 | 118 | |
| 62 | 52500 | IN | 3 | 3.36 | 3.00 | 0.54 | 1.00 | 0.33 | 118 | |
| 63 | 52601 | IN | 4 | 4.36 | 4.00 | 0.18 | 1.00 | 0.25 | 125 | |
| 64 | 54405 | IN | 3 | 2.95 | 3.00 | 0.26 | 0.00 | 0.00 | 83 | |
| 65 | 54521 | IN | 2 | 1.88 | 2.00 | 0.42 | 0.00 | 0.00 | 120 | |
| 66 | 55821 | IN | 9 | 8.34 | 9.00 | 0.13 | 1.00 | 0.11 | 119 | * |
| 67 | 55845 | IN | 9 | 8.97 | 9.00 | 0.14 | 0.00 | 0.00 | 107 | |
| 68 | 57260 | IN | 5 | 4.66 | 5.00 | 0.16 | 1.00 | 0.20 | 90 | |
| 69 | 58150 | IN | 5 | 4.68 | 5.00 | 0.14 | 1.00 | 0.20 | 98 | |
| 70 | 58210 | IN | 9 | 7.92 | 8.50 | 0.20 | 2.00 | 0.24 | 12 | * |
| 71 | 58265 | IN | 5 | 4.78 | 5.00 | 0.19 | 1.00 | 0.20 | 93 | |
| 72 | 58720 | IN | 5 | 4.22 | 4.00 | 0.17 | 1.00 | 0.25 | 95 | ** |
| 73 | 58740 | IN | 3 | 3.37 | 3.00 | 0.25 | 1.00 | 0.33 | 78 | |
| 74 | 58925 | IN | 5 | 4.09 | 4.00 | 0.21 | 1.25 | 0.31 | 98 | ** |
| 75 | 59120 | IN | 4 | 3.76 | 4.00 | 0.16 | 0.50 | 0.13 | 97 | |
| 76 | 59400 | IN | 2 | 2.26 | 2.00 | 0.23 | 1.00 | 0.50 | 90 | |
| 77 | 59510 | IN | 5 | 4.36 | 4.00 | 0.16 | 1.00 | 0.25 | 89 | ** |
| 78 | 59525 | IN | 4 | 4.98 | 5.00 | 0.15 | 0.75 | 0.15 | 52 | ** |
| 79 | 60220 | IN | 3 | 2.86 | 3.00 | 0.25 | 0.00 | 0.00 | 161 | |
| 80 | 61312 | IN | 8 | 11.04 | 8.00 | 0.54 | 6.00 | 0.75 | 113 | * |
| 81 | 61460 | IN | 2 | 5.64 | 5.00 | 0.27 | 2.00 | 0.40 | 61 | ** |
| 82 | 61510 | IN | 10 | 9.93 | 10.00 | 0.23 | 0.00 | 0.00 | 111 | |
| 83 | 62223 | IN | 8 | 6.55 | 7.00 | 0.26 | 3.00 | 0.43 | 109 | ** |
| 84 | 62230 | IN | 4 | 4.35 | 4.00 | 0.34 | 1.00 | 0.25 | 105 | |
| 85 | 63017 | IN | 7 | 7.14 | 7.00 | 0.18 | 0.00 | 0.00 | 114 | |
| 86 | 63030 | IN | 6 | 5.36 | 6.00 | 0.26 | 2.00 | 0.33 | 178 | * |
| 87 | 63042 | IN | 5 | 5.80 | 5.00 | 0.27 | 2.00 | 0.40 | 114 | * |
| 88 | 64856 | IN | 1 | 1.90 | 1.00 | 0.78 | 1.00 | 1.00 | 62 | * |
| 89 | 65750 | IN | 2 | 1.82 | 2.00 | 0.44 | 1.00 | 0.50 | 38 | |
| 90 | 67036 | IN | 2 | 2.18 | 2.00 | 0.39 | 1.00 | 0.50 | 22 | |
| 91 | 67107 | IN | 2 | 2.36 | 2.00 | 0.36 | 1.00 | 0.50 | 25 | |

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HOSPITAL VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY
CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15100 | IN | 6 | 7.18 | 6.00 | 0.65 | 1.00 | 0.17 | 72 | * |
| 2 | 15120 | IN | 6 | 6.11 | 6.00 | 0.46 | 0.00 | 0.00 | 119 | |
| 3 | 19240 | IN | 5 | 5.43 | 5.00 | 0.38 | 1.00 | 0.20 | 94 | |
| 4 | 19318 | IN | 2 | 2.72 | 2.00 | 0.43 | 1.00 | 0.50 | 127 | * |
| 5 | 20680 | IN | 2 | 2.18 | 2.00 | 0.33 | 0.00 | 0.00 | 154 | |
| 6 | 21200 | IN | 3 | 4.26 | 4.00 | 0.54 | 2.00 | 0.50 | 183 | ** |
| 7 | 21215 | IN | 3 | 4.61 | 4.00 | 0.38 | 2.25 | 0.56 | 18 | ** |
| 8 | 21240 | IN | 4 | 3.99 | 4.00 | 0.24 | 0.00 | 0.00 | 148 | |
| 9 | 21365 | IN | 4 | 4.49 | 4.00 | 0.47 | 1.00 | 0.25 | 101 | |
| 10 | 21455 | IN | 2 | 2.72 | 2.00 | 0.39 | 1.00 | 0.50 | 237 | * |
| 11 | 21470 | IN | 4 | 4.66 | 4.00 | 0.26 | 1.00 | 0.25 | 232 | * |
| 12 | 22554 | IN | 6 | 5.95 | 6.00 | 0.27 | 0.00 | 0.00 | 126 | |
| 13 | 23420 | IN | 3 | 3.58 | 3.00 | 0.32 | 1.00 | 0.33 | 96 | * |
| 14 | 25611 | IN | 2 | 2.23 | 2.00 | 0.35 | 1.00 | 0.50 | 96 | |
| 15 | 26951 | IN | 2 | 1.99 | 2.00 | 0.40 | 0.00 | 0.00 | 68 | |
| 16 | 27130 | IN | 11 | 11.46 | 11.00 | 0.22 | 1.00 | 0.09 | 96 | |
| 17 | 27244 | IN | 11 | 11.70 | 11.00 | 0.26 | 0.00 | 0.00 | 103 | * |
| 18 | 27814 | IN | 4 | 4.38 | 4.00 | 0.28 | 1.00 | 0.25 | 136 | |
| 19 | 27880 | IN | 11 | 12.25 | 11.00 | 0.28 | 3.00 | 0.27 | 204 | * |
| 20 | 28810 | IN | 6 | 7.11 | 6.00 | 0.37 | 2.00 | 0.33 | 268 | * |
| 21 | 31365 | IN | 14 | 15.50 | 14.00 | 0.24 | 2.00 | 0.14 | 111 | * |
| 22 | 31600 | IN | 16 | 14.72 | 16.00 | 0.33 | 0.00 | 0.00 | 175 | * |
| 23 | 32480 | IN | 10 | 11.15 | 10.00 | 0.22 | 2.00 | 0.20 | 126 | * |
| 24 | 32500 | IN | 8 | 9.03 | 8.00 | 0.33 | 1.00 | 0.13 | 124 | * |
| 25 | 33207 | IN | 5 | 4.61 | 5.00 | 0.27 | 1.00 | 0.20 | 124 | |
| 26 | 33212 | IN | 2 | 2.78 | 2.00 | 0.78 | 1.00 | 0.50 | 109 | * |
| 27 | 33405 | IN | 13 | 14.09 | 13.00 | 0.21 | 2.00 | 0.15 | 109 | * |
| 28 | 33512 | IN | 10 | 11.47 | 10.00 | 0.24 | 2.00 | 0.20 | 110 | * |
| 29 | 34201 | IN | 9 | 9.78 | 9.00 | 0.30 | 0.00 | 0.00 | 156 | * |
| 30 | 35081 | IN | 9 | 11.63 | 10.50 | 0.32 | 3.00 | 0.29 | 268 | ** |
| 31 | 35301 | IN | 6 | 6.01 | 6.00 | 0.24 | 0.00 | 0.00 | 158 | |
| 32 | 35556 | IN | 8 | 9.88 | 9.00 | 0.30 | 3.00 | 0.33 | 156 | ** |
| 33 | 35566 | IN | 8 | 10.85 | 10.00 | 0.30 | 4.00 | 0.40 | 157 | ** |
| 34 | 35646 | IN | 10 | 11.32 | 10.00 | 0.27 | 2.00 | 0.20 | 158 | * |
| 35 | 36800 | IN | 5 | 4.75 | 5.00 | 0.45 | 1.00 | 0.20 | 128 | |
| 36 | 36830 | IN | 5 | 4.59 | 5.00 | 0.42 | 2.00 | 0.40 | 125 | |
| 37 | 37620 | IN | 10 | 9.30 | 10.00 | 0.29 | 0.00 | 0.00 | 206 | * |
| 38 | 38100 | IN | 8 | 8.67 | 8.00 | 0.29 | 0.00 | 0.00 | 88 | * |
| 39 | 38720 | IN | 7 | 7.55 | 7.00 | 0.24 | 1.00 | 0.14 | 149 | * |
| 40 | 39400 | IN | 3 | 3.27 | 3.00 | 0.39 | 1.00 | 0.33 | 120 | |
| 41 | 42415 | IN | 3 | 3.73 | 3.00 | 0.33 | 1.00 | 0.33 | 232 | * |
| 42 | 42820 | IN | 2 | 2.08 | 2.00 | 0.24 | 0.00 | 0.00 | 120 | |
| 43 | 43630 | IN | 9 | 9.98 | 9.00 | 0.29 | 1.00 | 0.11 | 88 | * |
| 44 | 43830 | IN | 5 | 5.16 | 5.00 | 0.37 | 0.00 | 0.00 | 87 | |
| 45 | 44005 | IN | 9 | 9.73 | 9.00 | 0.29 | 1.00 | 0.11 | 94 | * |
| 46 | 44120 | IN | 11 | 10.76 | 11.00 | 0.31 | 2.50 | 0.23 | 93 | |

Notes: "Pre-printed value" refers to the value that appeared on the physician survey.

* indicates that the survey mean differs from the preliminary value.

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## HOSPITAL VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES

### *** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 44145 | IN | 11 | 11.55 | 11.00 | 0.31 | 0.00 | 0.00 | 93 | * |
| 48 | 44950 | IN | 4 | 4.31 | 4.00 | 0.43 | 0.00 | 0.00 | 96 | |
| 49 | 45110 | IN | 12 | 13.20 | 12.00 | 0.27 | 2.00 | 0.17 | 86 | * |
| 50 | 47600 | IN | 6 | 5.77 | 6.00 | 0.44 | 2.00 | 0.33 | 96 | |
| 51 | 49000 | IN | 7 | 7.68 | 7.00 | 0.29 | 1.00 | 0.14 | 146 | * |
| 52 | 49505 | IN | 3 | 2.55 | 3.00 | 0.50 | 1.00 | 0.33 | 153 | |
| 53 | 49560 | IN | 3 | 4.01 | 3.00 | 0.53 | 2.00 | 0.67 | 90 | * |
| 54 | 50080 | IN | 8 | 7.43 | 8.00 | 0.30 | 2.00 | 0.25 | 74 | * |
| 55 | 50230 | IN | 9 | 9.50 | 9.00 | 0.24 | 0.00 | 0.00 | 124 | * |
| 56 | 50360 | IN | 14 | 14.50 | 14.00 | 0.06 | 1.25 | 0.09 | 6 | * |
| 57 | 51040 | IN | 5 | 5.20 | 5.00 | 0.29 | 0.00 | 0.00 | 116 | |
| 58 | 51840 | IN | 7 | 7.21 | 7.00 | 0.27 | 0.00 | 0.00 | 107 | |
| 59 | 52240 | IN | 4 | 4.76 | 4.00 | 0.32 | 1.00 | 0.25 | 123 | * |
| 60 | 52276 | IN | 2 | 2.78 | 2.00 | 1.34 | 1.00 | 0.50 | 113 | * |
| 61 | 52336 | IN | 4 | 4.25 | 4.00 | 0.30 | 0.00 | 0.00 | 118 | |
| 62 | 52500 | IN | 4 | 4.36 | 4.00 | 0.26 | 1.00 | 0.25 | 118 | |
| 63 | 52601 | IN | 5 | 5.71 | 5.00 | 0.26 | 1.00 | 0.20 | 125 | * |
| 64 | 54405 | IN | 4 | 4.22 | 4.00 | 0.26 | 0.00 | 0.00 | 83 | |
| 65 | 54521 | IN | 3 | 2.88 | 3.00 | 0.32 | 0.00 | 0.00 | 121 | |
| 66 | 55821 | IN | 10 | 10.09 | 10.00 | 0.21 | 0.00 | 0.00 | 119 | |
| 67 | 55845 | IN | 10 | 10.92 | 10.00 | 0.22 | 2.00 | 0.20 | 107 | * |
| 68 | 57260 | IN | 6 | 6.19 | 6.00 | 0.23 | 0.00 | 0.00 | 88 | |
| 69 | 58150 | IN | 6 | 6.11 | 6.00 | 0.19 | 0.00 | 0.00 | 95 | |
| 70 | 58210 | IN | 10 | 9.42 | 10.00 | 0.17 | 0.75 | 0.07 | 12 | * |
| 71 | 58265 | IN | 6 | 6.24 | 6.00 | 0.20 | 0.00 | 0.00 | 93 | |
| 72 | 58720 | IN | 6 | 5.56 | 6.00 | 0.19 | 1.00 | 0.17 | 95 | |
| 73 | 58740 | IN | 4 | 4.36 | 4.00 | 0.26 | 1.00 | 0.25 | 78 | |
| 74 | 58925 | IN | 6 | 5.44 | 6.00 | 0.21 | 1.00 | 0.17 | 98 | * |
| 75 | 59120 | IN | 5 | 4.95 | 5.00 | 0.17 | 0.00 | 0.00 | 96 | |
| 76 | 59400 | IN | 2 | 2.67 | 2.00 | 0.32 | 1.00 | 0.50 | 89 | * |
| 77 | 59510 | IN | 6 | 5.71 | 6.00 | 0.19 | 1.00 | 0.17 | 89 | |
| 78 | 59525 | IN | 5 | 6.13 | 6.00 | 0.20 | 2.00 | 0.33 | 52 | ** |
| 79 | 60220 | IN | 4 | 4.14 | 4.00 | 0.33 | 0.00 | 0.00 | 160 | |
| 80 | 61312 | IN | 8 | 12.14 | 10.00 | 0.56 | 6.00 | 0.60 | 113 | ** |
| 81 | 61460 | IN | 3 | 6.36 | 6.00 | 0.36 | 2.00 | 0.33 | 61 | ** |
| 82 | 61510 | IN | 11 | 11.60 | 11.00 | 0.19 | 1.00 | 0.09 | 110 | * |
| 83 | 62223 | IN | 8 | 7.15 | 8.00 | 0.24 | 2.00 | 0.25 | 110 | * |
| 84 | 62230 | IN | 4 | 4.71 | 4.00 | 0.33 | 1.00 | 0.25 | 105 | * |
| 85 | 63017 | IN | 7 | 7.48 | 7.00 | 0.19 | 1.00 | 0.14 | 114 | |
| 86 | 63030 | IN | 6 | 5.79 | 6.00 | 0.27 | 1.00 | 0.17 | 179 | |
| 87 | 63042 | IN | 5 | 6.11 | 6.00 | 0.30 | 2.00 | 0.33 | 114 | ** |
| 88 | 64856 | IN | 1 | 2.17 | 2.00 | 0.80 | 2.00 | 1.00 | 58 | ** |
| 89 | 65750 | IN | 2 | 1.97 | 2.00 | 0.49 | 0.00 | 0.00 | 37 | |
| 90 | 67036 | IN | 2 | 2.32 | 2.00 | 0.36 | 1.00 | 0.50 | 22 | |
| 91 | 67107 | IN | 2 | 2.54 | 2.00 | 0.33 | 1.00 | 0.50 | 24 | * |

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* indicates that the survey mean differs from the preliminary value.

** indicates that the survey mean and median differ from the preliminary value.

### OFFICE VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES

*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10061 | OUT | 3 | 3.92 | 3.00 | 0.41 | 2.00 | 0.67 | 207 | * |
| 2 | 11040 | OUT | 3 | 3.67 | 3.00 | 0.49 | 1.00 | 0.33 | 60 | * |
| 3 | 11042 | OUT | 3 | 4.27 | 3.00 | 0.45 | 2.00 | 0.67 | 235 | * |
| 4 | 11100 | OUT | 2 | 2.34 | 2.00 | 0.40 | 0.00 | 0.00 | 287 | |
| 5 | 11402 | OUT | 2 | 2.35 | 2.00 | 0.45 | 1.00 | 0.50 | 273 | |
| 6 | 11441 | OUT | 2 | 2.16 | 2.00 | 0.48 | 0.00 | 0.00 | 388 | |
| 7 | 11602 | OUT | 2 | 2.42 | 2.00 | 0.33 | 1.00 | 0.50 | 142 | |
| 8 | 11642 | OUT | 2 | 3.20 | 3.00 | 0.48 | 2.00 | 0.67 | 371 | ** |
| 9 | 11701 | OUT | 2 | 2.47 | 2.00 | 0.36 | 1.00 | 0.50 | 62 | |
| 10 | 11750 | OUT | 2 | 3.44 | 3.00 | 0.55 | 2.00 | 0.67 | 392 | ** |
| 11 | 12052 | OUT | 2 | 3.13 | 3.00 | 0.42 | 2.00 | 0.67 | 232 | ** |
| 12 | 13132 | OUT | 2 | 3.61 | 3.00 | 0.47 | 2.00 | 0.67 | 396 | ** |
| 13 | 13152 | OUT | 2 | 3.25 | 3.00 | 0.42 | 2.00 | 0.67 | 52 | ** |
| 14 | 14040 | OUT | 1 | 3.78 | 4.00 | 0.43 | 2.00 | 0.50 | 193 | ** |
| 15 | 14060 | OUT | 2 | 3.93 | 4.00 | 0.43 | 2.00 | 0.50 | 282 | ** |
| 16 | 15100 | IN | 4 | 4.59 | 4.00 | 0.29 | 2.00 | 0.50 | 74 | * |
| 17 | 15120 | IN | 4 | 5.80 | 6.00 | 0.37 | 3.00 | 0.50 | 122 | ** |
| 18 | 15260 | OUT | 4 | 4.47 | 4.00 | 0.26 | 1.00 | 0.25 | 45 | |
| 19 | 15822 | OUT | 3 | 4.43 | 4.00 | 0.37 | 3.00 | 0.75 | 7 | ** |
| 20 | 15823 | OUT | 3 | 4.15 | 4.00 | 0.35 | 2.00 | 0.50 | 132 | ** |
| 21 | 17001 | OUT | 2 | 2.45 | 2.00 | 0.41 | 1.00 | 0.50 | 97 | |
| 22 | 17304 | OUT | 1 | 3.14 | 3.00 | 0.53 | 1.25 | 0.42 | 22 | ** |
| 23 | 19120 | OUT | 2 | 2.41 | 2.00 | 0.43 | 1.00 | 0.50 | 94 | |
| 24 | 19240 | IN | 3 | 4.55 | 4.00 | 0.45 | 2.00 | 0.50 | 95 | ** |
| 25 | 19318 | IN | 2 | 5.36 | 5.00 | 0.42 | 2.00 | 0.40 | 128 | ** |
| 26 | 20680 | IN | 2 | 2.84 | 2.00 | 0.54 | 1.00 | 0.50 | 152 | * |
| 27 | 21200 | IN | 4 | 7.18 | 7.00 | 0.35 | 2.00 | 0.29 | 184 | ** |
| 28 | 21200 | OUT | 4 | 6.63 | 6.00 | 0.45 | 4.00 | 0.67 | 27 | ** |
| 29 | 21215 | IN | 2 | 4.00 | 4.00 | 0.28 | 2.00 | 0.50 | 18 | ** |
| 30 | 21240 | IN | 3 | 6.67 | 6.00 | 0.45 | 3.00 | 0.50 | 149 | ** |
| 31 | 21320 | OUT | 2 | 2.92 | 2.00 | 0.50 | 2.00 | 1.00 | 220 | * |
| 32 | 21365 | IN | 2 | 3.33 | 3.00 | 0.33 | 2.00 | 0.67 | 102 | ** |
| 33 | 21455 | IN | 5 | 5.97 | 5.00 | 0.30 | 2.00 | 0.40 | 236 | * |
| 34 | 21470 | IN | 5 | 6.39 | 5.00 | 0.32 | 3.00 | 0.60 | 232 | * |
| 35 | 22554 | IN | 2 | 3.24 | 3.00 | 0.35 | 2.00 | 0.67 | 128 | ** |
| 36 | 23420 | IN | 3 | 4.86 | 5.00 | 0.32 | 2.00 | 0.40 | 95 | ** |
| 37 | 25605 | OUT | 3 | 4.67 | 5.00 | 0.31 | 2.00 | 0.40 | 100 | ** |
| 38 | 25611 | IN | 5 | 5.47 | 5.00 | 0.22 | 1.00 | 0.20 | 99 | |
| 39 | 26055 | OUT | 1 | 2.11 | 2.00 | 0.53 | 2.00 | 1.00 | 97 | ** |
| 40 | 26160 | OUT | 1 | 2.33 | 2.00 | 0.47 | 1.00 | 0.50 | 95 | ** |
| 41 | 26951 | IN | 4 | 4.61 | 4.00 | 0.28 | 1.25 | 0.31 | 70 | * |
| 42 | 27130 | IN | 2 | 3.54 | 3.00 | 0.45 | 1.00 | 0.33 | 96 | ** |
| 43 | 27244 | IN | 3 | 3.51 | 3.00 | 0.30 | 1.00 | 0.33 | 103 | * |
| 44 | 27786 | OUT | 4 | 5.24 | 5.00 | 0.32 | 2.00 | 0.40 | 78 | ** |
| 45 | 27814 | IN | 3 | 4.65 | 4.00 | 0.36 | 3.00 | 0.75 | 138 | ** |
| 46 | 27880 | IN | 3 | 3.81 | 3.00 | 0.36 | 2.00 | 0.67 | 209 | * |

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OFFICE VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY
CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 28080 | OUT | 2 | 4.49 | 4.00 | 0.49 | 2.75 | 0.69 | 240 | ** |
| 48 | 28108 | OUT | 3 | 5.06 | 5.00 | 0.43 | 3.00 | 0.60 | 124 | ** |
| 49 | 28124 | OUT | 3 | 3.65 | 3.00 | 0.33 | 1.00 | 0.33 | 63 | * |
| 50 | 28126 | OUT | 1 | 4.77 | 4.00 | 0.50 | 3.00 | 0.75 | 145 | ** |
| 51 | 28153 | OUT | 2 | 4.52 | 4.00 | 0.53 | 3.00 | 0.75 | 238 | ** |
| 52 | 28160 | OUT | 1 | 5.14 | 4.00 | 0.49 | 3.00 | 0.75 | 153 | ** |
| 53 | 28270 | OUT | 4 | 4.49 | 4.00 | 0.45 | 0.00 | 0.00 | 154 | |
| 54 | 28285 | OUT | 2 | 5.43 | 5.00 | 0.43 | 2.00 | 0.40 | 152 | ** |
| 55 | 28292 | OUT | 3 | 6.09 | 5.00 | 0.50 | 3.75 | 0.75 | 244 | ** |
| 56 | 28308 | OUT | 4 | 5.91 | 5.00 | 0.47 | 3.00 | 0.60 | 212 | ** |
| 57 | 28470 | OUT | 3 | 4.86 | 4.00 | 0.45 | 3.00 | 0.75 | 146 | ** |
| 58 | 28810 | IN | 4 | 5.14 | 4.00 | 0.41 | 2.00 | 0.50 | 269 | * |
| 59 | 29125 | OUT | 2 | 3.63 | 3.00 | 0.53 | 2.00 | 0.67 | 76 | ** |
| 60 | 29881 | OUT | 2 | 3.68 | 4.00 | 0.36 | 1.00 | 0.25 | 99 | ** |
| 61 | 30520 | OUT | 3 | 3.97 | 3.00 | 0.39 | 2.00 | 0.67 | 252 | * |
| 62 | 31365 | IN | 3 | 5.16 | 5.00 | 0.40 | 2.00 | 0.40 | 111 | ** |
| 63 | 31600 | IN | 3 | 3.31 | 3.00 | 0.37 | 0.00 | 0.00 | 176 | |
| 64 | 32480 | IN | 4 | 3.57 | 4.00 | 0.30 | 1.00 | 0.25 | 125 | |
| 65 | 32500 | IN | 2 | 2.55 | 2.00 | 0.43 | 1.00 | 0.50 | 124 | * |
| 66 | 33207 | IN | 1 | 1.38 | 1.00 | 0.55 | 1.00 | 1.00 | 122 | |
| 67 | 33212 | IN | 1 | 1.27 | 1.00 | 0.51 | 0.00 | 0.00 | 108 | |
| 68 | 33405 | IN | 1 | 1.79 | 1.00 | 0.57 | 1.00 | 1.00 | 108 | * |
| 69 | 33512 | IN | 1 | 1.79 | 1.00 | 0.62 | 1.00 | 1.00 | 108 | * |
| 70 | 34201 | IN | 2 | 3.04 | 3.00 | 0.45 | 2.00 | 0.67 | 156 | ** |
| 71 | 35081 | IN | 5 | 4.28 | 5.00 | 0.33 | 2.00 | 0.40 | 268 | * |
| 72 | 35301 | IN | 3 | 3.14 | 3.00 | 0.35 | 0.00 | 0.00 | 157 | |
| 73 | 35556 | IN | 2 | 3.49 | 3.00 | 0.40 | 2.00 | 0.67 | 155 | ** |
| 74 | 35566 | IN | 2 | 3.79 | 4.00 | 0.41 | 1.00 | 0.25 | 156 | ** |
| 75 | 35646 | IN | 2 | 3.35 | 3.00 | 0.41 | 2.00 | 0.67 | 156 | ** |
| 76 | 36800 | IN | 1 | 1.58 | 1.00 | 0.86 | 1.00 | 1.00 | 128 | * |
| 77 | 36830 | IN | 1 | 1.68 | 1.00 | 0.63 | 1.00 | 1.00 | 125 | * |
| 78 | 37620 | IN | 2 | 2.06 | 2.00 | 0.48 | 0.00 | 0.00 | 206 | |
| 79 | 38100 | IN | 2 | 2.63 | 2.00 | 0.35 | 1.00 | 0.50 | 89 | * |
| 80 | 38510 | OUT | 2 | 2.30 | 2.00 | 0.45 | 0.00 | 0.00 | 93 | |
| 81 | 38720 | IN | 4 | 4.86 | 4.00 | 0.38 | 2.00 | 0.50 | 150 | * |
| 82 | 39400 | IN | 1 | 1.22 | 1.00 | 0.47 | 0.00 | 0.00 | 119 | |
| 83 | 40500 | OUT | 2 | 3.60 | 4.00 | 0.36 | 1.00 | 0.25 | 150 | ** |
| 84 | 42415 | IN | 3 | 3.92 | 3.00 | 0.38 | 2.00 | 0.67 | 235 | * |
| 85 | 42820 | IN | 1 | 1.40 | 1.00 | 0.49 | 1.00 | 1.00 | 122 | |
| 86 | 43630 | IN | 2 | 3.43 | 3.00 | 0.50 | 2.00 | 0.67 | 89 | ** |
| 87 | 43830 | IN | 4 | 3.34 | 4.00 | 0.38 | 2.00 | 0.50 | 86 | * |
| 88 | 44005 | IN | 2 | 2.70 | 2.00 | 0.46 | 1.00 | 0.50 | 94 | * |
| 89 | 44120 | IN | 2 | 2.80 | 2.00 | 0.48 | 1.00 | 0.50 | 93 | * |
| 90 | 44145 | IN | 2 | 3.23 | 3.00 | 0.49 | 2.00 | 0.67 | 93 | ** |
| 91 | 44950 | IN | 2 | 2.18 | 2.00 | 0.38 | 0.00 | 0.00 | 96 | |
| 92 | 45110 | IN | 3 | 4.05 | 3.00 | 0.43 | 2.00 | 0.67 | 86 | * |

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## OFFICE VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES

*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47600 | IN | 3 | 2.83 | 3.00 | 0.35 | 1.00 | 0.33 | 95 | |
| 94 | 49000 | IN | 2 | 2.53 | 2.00 | 0.38 | 1.00 | 0.50 | 146 | * |
| 95 | 49505 | IN | 2 | 2.38 | 2.00 | 0.34 | 1.00 | 0.50 | 157 | |
| 96 | 49560 | IN | 2 | 2.56 | 2.00 | 0.39 | 1.00 | 0.50 | 90 | * |
| 97 | 50080 | IN | 2 | 3.19 | 3.00 | 0.42 | 2.00 | 0.67 | 75 | ** |
| 98 | 50230 | IN | 2 | 3.06 | 3.00 | 0.35 | 2.00 | 0.67 | 125 | ** |
| 99 | 50360 | IN | 5 | 9.17 | 5.00 | 1.11 | 6.25 | 1.25 | 6 | * |
| 100 | 50590 | OUT | 2 | 2.82 | 3.00 | 0.36 | 1.00 | 0.33 | 100 | ** |
| 101 | 51040 | IN | 3 | 3.18 | 3.00 | 0.22 | 0.00 | 0.00 | 117 | |
| 102 | 51840 | IN | 3 | 3.52 | 3.00 | 0.30 | 1.00 | 0.33 | 105 | * |
| 103 | 52240 | IN | 2 | 2.91 | 3.00 | 0.38 | 1.00 | 0.33 | 123 | ** |
| 104 | 52276 | IN | 2 | 2.81 | 2.00 | 0.41 | 1.00 | 0.50 | 114 | * |
| 105 | 52336 | IN | 3 | 3.21 | 3.00 | 0.22 | 0.00 | 0.00 | 118 | |
| 106 | 52500 | IN | 2 | 2.72 | 2.00 | 0.33 | 1.00 | 0.50 | 117 | * |
| 107 | 52601 | IN | 3 | 3.33 | 3.00 | 0.30 | 1.00 | 0.33 | 126 | |
| 108 | 54161 | OUT | 1 | 1.90 | 2.00 | 0.43 | 1.00 | 0.50 | 127 | ** |
| 109 | 54405 | IN | 3 | 3.70 | 3.00 | 0.27 | 2.00 | 0.67 | 83 | * |
| 110 | 54521 | IN | 2 | 2.40 | 2.00 | 0.30 | 1.00 | 0.50 | 122 | |
| 111 | 55040 | OUT | 1 | 2.12 | 2.00 | 0.43 | 2.00 | 1.00 | 125 | ** |
| 112 | 55821 | IN | 2 | 3.22 | 3.00 | 0.34 | 2.00 | 0.67 | 118 | ** |
| 113 | 55845 | IN | 3 | 4.11 | 4.00 | 0.33 | 2.00 | 0.50 | 107 | ** |
| 114 | 57065 | OUT | 1 | 1.56 | 1.00 | 0.58 | 1.00 | 1.00 | 85 | * |
| 115 | 57260 | IN | 2 | 2.27 | 2.00 | 0.31 | 0.00 | 0.00 | 90 | |
| 116 | 57520 | OUT | 2 | 2.00 | 2.00 | 0.23 | 0.00 | 0.00 | 94 | |
| 117 | 57700 | OUT | 6 | 6.36 | 6.00 | 0.26 | 0.00 | 0.00 | 70 | |
| 118 | 58120 | OUT | 1 | 1.10 | 1.00 | 0.31 | 0.00 | 0.00 | 98 | |
| 119 | 58150 | IN | 2 | 2.33 | 2.00 | 0.33 | 0.00 | 0.00 | 98 | |
| 120 | 58210 | IN | 2 | 3.25 | 3.00 | 0.51 | 1.75 | 0.58 | 12 | ** |
| 121 | 58265 | IN | 3 | 2.87 | 3.00 | 0.35 | 1.00 | 0.33 | 93 | |
| 122 | 58600 | OUT | 1 | 1.19 | 1.00 | 0.35 | 0.00 | 0.00 | 91 | |
| 123 | 58720 | IN | 3 | 2.49 | 3.00 | 0.23 | 1.00 | 0.33 | 95 | * |
| 124 | 58740 | IN | 1 | 1.64 | 2.00 | 0.46 | 1.00 | 0.50 | 78 | ** |
| 125 | 58925 | IN | 2 | 2.04 | 2.00 | 0.21 | 0.00 | 0.00 | 97 | |
| 126 | 58980 | OUT | 2 | 1.76 | 2.00 | 0.24 | 0.00 | 0.00 | 92 | |
| 127 | 59120 | IN | 3 | 2.52 | 3.00 | 0.22 | 1.00 | 0.33 | 97 | |
| 128 | 59400 | IN | 1 | 1.26 | 1.00 | 0.54 | 0.00 | 0.00 | 90 | |
| 129 | 59510 | IN | 1 | 1.78 | 2.00 | 0.40 | 1.00 | 0.50 | 89 | ** |
| 130 | 59525 | IN | 1 | 2.04 | 2.00 | 0.41 | 0.00 | 0.00 | 52 | ** |
| 131 | 59841 | OUT | 1 | 1.06 | 1.00 | 0.22 | 0.00 | 0.00 | 36 | |
| 132 | 60220 | IN | 2 | 2.78 | 2.00 | 0.37 | 1.00 | 0.50 | 160 | * |
| 133 | 61312 | IN | 2 | 3.04 | 3.00 | 0.41 | 2.00 | 0.67 | 113 | ** |
| 134 | 61460 | IN | 3 | 3.38 | 3.00 | 0.32 | 0.00 | 0.00 | 61 | |
| 135 | 61510 | IN | 3 | 3.60 | 3.00 | 0.36 | 1.00 | 0.33 | 110 | * |
| 136 | 62223 | IN | 1 | 2.41 | 2.00 | 0.44 | 1.00 | 0.50 | 110 | ** |
| 137 | 62230 | IN | 1 | 2.27 | 2.00 | 0.74 | 2.00 | 1.00 | 105 | ** |
| 138 | 63017 | IN | 1 | 2.91 | 3.00 | 0.42 | 1.00 | 0.33 | 113 | ** |

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OFFICE VISITS: SUMMARY OF DOCTOR SURVEY RESPONSES, BY
CPT4/SETTING COMBINATIONS, COLLAPSED ACROSS SOCIETIES
*** ORDERED BY CPT4 AND SETTING ***

| OBS | CPT4 CODE | SET-TING | PRE-PRINTED VALUE | MEAN | MEDIAN | CV | QRANGE | QRANGE/ MEDIAN | N | DIF-FER |
|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 63030 | IN | 3 | 3.45 | 3.00 | 0.32 | 1.00 | 0.33 | 179 | |
| 140 | 63042 | IN | 4 | 3.84 | 4.00 | 0.25 | 1.00 | 0.25 | 114 | |
| 141 | 64721 | OUT | 2 | 2.84 | 2.00 | 0.40 | 2.00 | 1.00 | 211 | * |
| 142 | 64856 | IN | 3 | 3.37 | 3.00 | 0.35 | 0.00 | 0.00 | 60 | |
| 143 | 65420 | OUT | 3 | 4.07 | 3.00 | 0.43 | 2.00 | 0.67 | 115 | * |
| 144 | 65750 | IN | 5 | 6.97 | 6.00 | 0.40 | 3.00 | 0.50 | 38 | ** |
| 145 | 65855 | OUT | 2 | 3.39 | 3.00 | 0.37 | 1.00 | 0.33 | 108 | ** |
| 146 | 66170 | OUT | 7 | 7.73 | 7.00 | 0.23 | 1.00 | 0.14 | 104 | * |
| 147 | 66250 | OUT | 2 | 4.24 | 4.00 | 0.52 | 2.00 | 0.50 | 99 | ** |
| 148 | 66625 | OUT | 1 | 3.24 | 3.00 | 0.40 | 2.00 | 0.67 | 86 | ** |
| 149 | 66821 | OUT | 1 | 2.00 | 2.00 | 0.48 | 2.00 | 1.00 | 122 | ** |
| 150 | 66984 | OUT | 5 | 5.94 | 5.00 | 0.29 | 1.00 | 0.20 | 124 | * |
| 151 | 66985 | OUT | 4 | 5.04 | 5.00 | 0.24 | 2.00 | 0.40 | 115 | ** |
| 152 | 67036 | IN | 3 | 4.74 | 5.00 | 0.31 | 3.00 | 0.60 | 23 | ** |
| 153 | 67107 | IN | 3 | 4.31 | 4.00 | 0.31 | 2.00 | 0.50 | 26 | ** |
| 154 | 67145 | OUT | 1 | 2.69 | 3.00 | 0.34 | 1.00 | 0.33 | 72 | ** |
| 155 | 67228 | OUT | 2 | 2.92 | 3.00 | 0.34 | 2.00 | 0.67 | 66 | ** |
| 156 | 67800 | OUT | 1 | 1.34 | 1.00 | 0.56 | 1.00 | 1.00 | 128 | |
| 157 | 67904 | OUT | 2 | 3.60 | 3.00 | 0.42 | 2.00 | 0.67 | 151 | ** |
| 158 | 67917 | OUT | 2 | 2.85 | 3.00 | 0.31 | 1.00 | 0.33 | 104 | ** |
| 159 | 67921 | OUT | 1 | 4.00 | 4.00 | . | 0.00 | 0.00 | 1 | ** |
| 160 | 68760 | OUT | 1 | 1.56 | 1.00 | 0.48 | 1.00 | 1.00 | 81 | * |
| 161 | 69631 | OUT | 4 | 4.67 | 4.00 | 0.27 | 2.00 | 0.50 | 121 | * |

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** indicates that the survey mean and median differ from the preliminary value.

# APPENDIX J

# FINAL VISIT PATTERNS

## PPRC Final Visit Patterns

| CPT CODE | DESCRIPTION | # OF PREOP VISITS | PREOP VISIT #1 DURATION | PREOP VISIT #2 DURATION | RECOV ROOM VISITS | RECOV ROOM DURATION | OTHER HOSPITAL VISITS | HOSPITAL VISIT DURATION | # OF OFFICE VISITS | OFFICE VISIT DURATION |
|---|---|---|---|---|---|---|---|---|---|---|
| 10061 | I&D SKIN ABSCESS-COMPLIC | 1 | 20 | | | | | | 3 | 10 |
| 11040 | DEBRID-PART SKIN THICK | 1 | 20 | | | | | | 3 | 10 |
| 11042 | DEBRID-SKIN&SUBQ TIS | 1 | 20 | | | | | | 3 | 10 |
| 11100 | SKIN/SUBQ BIOPSY-1 LES'N | 1 | 20 | | | | | | 2 | 10 |
| 11402 | EXC BEN LES-TR&EXT-1-2CM | 1 | 20 | | | | | | 2 | 10 |
| 11441 | EXC BEN LES-OTHR-.5-1CM | 1 | 20 | | | | | | 2 | 10 |
| 11602 | EXC MAL LES-TR&EXT-1-2CM | 1 | 20 | | | | | | 2 | 10 |
| 11642 | EXC MAL LES-FACE-1-2CM | 1 | 20 | | | | | | 3 | 10 |
| 11701 | MAN DEBRID NAILS-+5/LESS | 1 | 20 | | | | | | 2 | 10 |
| 11750 | EXC NAIL&MATRX-PERM RML | 1 | 20 | | | | | | 3 | 10 |
| 12052 | LY CL-FACE,MM-2.5-5CM | 1 | 20 | | | | | | 3 | 10 |
| 13132 | COMPX RP-FCE-2.5-7.5CM | 1 | 20 | | | | | | 3 | 10 |
| 13152 | CMPLX RP-E/E/N-2.5-7.5CM | 1 | 20 | | | | | | 3 | 10 |
| 14040 | TIS TRNS-FACE- <10SQCM | 1 | 20 | | | | | | 4 | 10 |
| 14060 | TIS TRNS-E/E/N- <10SQCM | 1 | 20 | | | | | | 4 | 10 |
| 15100 | SPLT GF-SCLP/TK-<100SQCM | 2 | 25 | 15 | 1 | 20 | 5 | 20 | 4 | 10 |
| 15120 | SPLT GF-FCE/GEN-<100SQCM | 2 | 25 | 15 | 1 | 20 | 5 | 20 | 6 | 10 |
| 15260 | FTHCK EYE/EAR/NSE-20SQCM | 1 | 20 | | | | | | 4 | 10 |
| 15822 | UPPER LID BLEPHAROPLASTY | 1 | 20 | | | | | | 4 | 10 |
| 15823 | UP BLEPHAROPLAS&FAT HERN | 1 | 20 | | 1 | 10 | | | 4 | 10 |
| 17001 | DESTRCTN FACE LES-2&3 | 1 | 20 | | | | | | 2 | 5 |
| 17304 | CHEMOSURG-STAGE 1-FRSH T | 1 | 20 | | | | | | 3 | 10 |
| 19120 | BREAST LESION EXCISION | 1 | 20 | | | | | | 2 | 15 |
| 19240 | MODIFIED RADICAL MASTECT | 1 | 35 | | 1 | 10 | 4 | 10 | 4 | 10 |
| 19318 | REDUCTION MAMMOPLASTY | 1 | 35 | | 1 | 30 | 1 | 15 | 5 | 10 |
| 20680 | DEEP IMPLANT REMOVAL | 1 | 30 | | 1 | 5 | 1 | 20 | 2 | 10 |
| 21200 | TOTAL MANDIB OSTEOPLASTY | 1 | 25 | | 1 | 25 | 3 | 15 | 7 | 10 |
| 21215 | BONE GRAFT-MANDIBLE | 2 | 20 | 10 | 1 | 25 | 3 | 15 | 4 | 10 |
| 21240 | TM ARTHROPLASTY | 1 | 20 | | 1 | 25 | 3 | 15 | 6 | 15 |
| 21320 | NASAL FX MANIP & STABILI | 1 | 20 | | 1 | 25 | | | 2 | 10 |
| 21365 | OPEN RX COMPLEX MALAR FX | 2 | 25 | 15 | 1 | 25 | 3 | 15 | 3 | 10 |
| 21455 | INTERDENT FIX-MANDIBL FX | 2 | 20 | 10 | 1 | 20 | 1 | 20 | 5 | 10 |
| 21470 | O RX COMP MANDBL FX-MULT | 2 | 15 | 10 | 1 | 20 | 3 | 15 | 5 | 10 |
| 22554 | ANT INTBDY ARTH-GFT C3-7 | 2 | 35 | 15 | 1 | 20 | 5 | 15 | 3 | 15 |
| 23420 | RP COMP SH CUF AVULS-CHR | 2 | 35 | 15 | 1 | 15 | 2 | 15 | 5 | 10 |
| 25605 | RX C RD FX/EPH SEP W MNP | 1 | 20 | | 1 | 15 | | | 5 | 10 |
| 25611 | RX C CMPLX RD FX-FIX/PIN | 2 | 35 | 15 | 1 | 15 | 1 | 15 | 5 | 10 |
| 26055 | TEN SHETH INC TRIG FING | 1 | 20 | | 1 | 15 | | | 2 | 10 |
| 26160 | EXC LES TEN SHTH/CAP-HND | 1 | 20 | | 1 | 5 | | | 2 | 10 |
| 26951 | FNG/THMB AMP-ANY-DIR CL | 2 | 35 | 15 | 1 | 15 | 1 | 15 | 4 | 10 |
| 27130 | ARTHPLY-TOT HIP RPLC-SMP | 2 | 35 | 15 | 1 | 15 | 10 | 15 | 3 | 10 |
| 27244 | O RX ITRC/PRTRC FX-FIX | 2 | 35 | 15 | 1 | 15 | 10 | 15 | 3 | 10 |
| 27786 | RX C DISTAL FIB FX | 1 | 20 | | | | | | 5 | 15 |
| 27814 | OPEN RX BIMALLEOLAR FX | 2 | 35 | 15 | 1 | 20 | 3 | 15 | 4 | 15 |
| 27880 | AMP LEG,THROUGH TIBIA AND FIB | 2 | 30 | 10 | 1 | 15 | 10 | 15 | 3 | 15 |
| 28080 | EXC INTERDIGITAL NEUROMA | 1 | 20 | | 1 | 10 | | | 4 | 10 |
| 28108 | LES EXC-PHLAN-FOOT | 1 | 20 | | | | | | 5 | 10 |

Continued --

| CPT CODE | DESCRIPTION | # OF PREOP VISITS | PREOP VISIT #1 DURATION | PREOP VISIT #2 DURATION | RECOV ROOM VISITS | RECOV ROOM DURATION | OTHER HOSPITAL VISITS | HOSPITAL VISIT DURATION | # OF OFFICE VISITS | OFFICE VISIT DURATION |
|---|---|---|---|---|---|---|---|---|---|---|
| 28124 | PARTIAL EXC PHALANX TOE | 1 | 20 | | 1 | 15 | | | 3 | 10 |
| 28126 | CONDYLECTOMY-PHLANGE-TOE | 1 | 20 | | | | | | 4 | 10 |
| 28153 | RSEC HEAD OF PHLNX-FOOT | 1 | 20 | | 1 | 5 | | | 4 | 10 |
| 28160 | HEMIPHLNGCTMY/IP EXC-FT | 1 | 20 | | | | | | 4 | 10 |
| 28270 | CPSLTMY FOR CTRAC-MTP JT | 1 | 20 | | | | | | 4 | 10 |
| 28285 | HAMMERTOE OP-1 TOE | 1 | 20 | | | | | | 5 | 10 |
| 28292 | HALX VALGS CORR-MAYO TYPE | 1 | 20 | | 1 | 10 | | | 5 | 10 |
| 28308 | METATARSECT 2ND-5TH SNGL | 1 | 20 | | 1 | 10 | | | 5 | 10 |
| 28470 | RX CLSD METATARSAL FX | 1 | 20 | | | | | | 4 | 10 |
| 28810 | AMP, METATARSAL,TOE,SINGLE | 2 | 35 | 15 | 1 | 20 | 5 | 15 | 4 | 10 |
| 29125 | APP SHORT ARM SPLINT | 1 | 20 | | | | | | 3 | 10 |
| 29881 | ARTHSCP MED?LAT MNSTMY K | 1 | 20 | | 1 | 15 | | | 4 | 10 |
| 30520 | NASAL SEPTOPLASTY OR SMR | 1 | 15 | | 1 | 15 | | | 3 | 10 |
| 31365 | TOT LARYNGECT&RADCL NECK | 2 | 35 | 15 | 1 | 30 | 13 | 20 | 5 | 20 |
| 31600 | TRACHEOSTOMY, PLAN(SEP PROC); | 2 | 25 | 15 | 1 | 10 | 15 | 15 | 3 | 10 |
| 32480 | LOBECTOMY, TOTAL OR SEG; | 2 | 30 | 15 | 1 | 25 | 9 | 10 | 4 | 15 |
| 32500 | WEDGE RESEC OF LUNG, 1 OR MUL | 2 | 30 | 10 | 1 | 20 | 7 | 10 | 2 | 10 |
| 33207 | IN PERM PACEMAK TRANSVEN ELEC | 1 | 15 | | 1 | 15 | 4 | 15 | 1 | 10 |
| 33212 | IN/REPL PACE PULSE GEN/AICD P | 1 | 15 | | 1 | 15 | 1 | 15 | 1 | 10 |
| 33405 | REPL,AORTIC VALVE,W/CARDIOPUL | 2 | 35 | 15 | 1 | 50 | 12 | 15 | 1 | 15 |
| 33512 | CABGX3 | 2 | 35 | 15 | 1 | 50 | 9 | 15 | 1 | 15 |
| 34201 | EMBOLEC/THROMBEC,W(O)CAT;FEMR | 1 | 35 | | 1 | 30 | 8 | 15 | 3 | 20 |
| 35081 | DIR REP ANEUR/EXCIS(PART/TOT) | 2 | 35 | 15 | 1 | 20 | 10 | 20 | 5 | 15 |
| 35301 | THRMBONDRCTMY-CAROTD ETC | 2 | 35 | 15 | 1 | 30 | 5 | 15 | 3 | 15 |
| 35556 | BYPASS GRAFT,W/VEIN;FEMORAL-P | 2 | 35 | 15 | 1 | 30 | 8 | 15 | 3 | 20 |
| 35566 | BP GRAFT,V;FEM-ANT,POST TIB,P | 2 | 35 | 15 | 1 | 45 | 9 | 15 | 4 | 15 |
| 35646 | BYPASS GRAFT,NOT VEIN;AORTOFE | 2 | 35 | 15 | 1 | 20 | 9 | 20 | 3 | 15 |
| 36800 | INS CANN HEMODIA,OTHER PURPOS | 2 | 15 | 5 | 1 | 20 | 4 | 10 | 1 | 15 |
| 36830 | CREAT ARTVEN FIST;NONAUTOGEN | 2 | 15 | 5 | 1 | 20 | 4 | 10 | 1 | 15 |
| 37620 | INT,PRT/COMP,IN V CAVA,SUT,LI | 2 | 35 | 15 | 1 | 15 | 9 | 15 | 2 | 15 |
| 38100 | SPLENECTOMY TOTAL | 1 | 35 | | 1 | 10 | 7 | 10 | 2 | 10 |
| 38510 | BIOP/EXC LYM NODE(S);DEEP CER | 1 | 20 | | 1 | 10 | | | 2 | 10 |
| 38720 | CERVICAL LYMPHADNCTY-UNI | 2 | 35 | 15 | 1 | 30 | 6 | 15 | 4 | 10 |
| 39400 | MEDIASTINOSCOPY ,W(O)BIOPSY | 1 | 15 | | 1 | 15 | 2 | 15 | 1 | 10 |
| 40500 | LIP SHAVE W MUCOSAL ADVC | 1 | 15 | | 1 | 5 | | | 4 | 10 |
| 42415 | EXC PAROTD LAT-DSEC NERV | 1 | 25 | | 1 | 25 | 2 | 15 | 3 | 10 |
| 42820 | T&A < AGE 12 | 1 | 15 | | 1 | 20 | 1 | 15 | 1 | 5 |
| 43630 | HEMIGASTRCTMY S VAGOTOMY | 1 | 35 | | 1 | 10 | 8 | 10 | 3 | 10 |
| 43830 | TEMPORARY GASTROSTOMY | 1 | 35 | | 1 | 10 | 4 | 10 | 4 | 15 |
| 44005 | ENTEROLYSIS | 1 | 35 | | 1 | 10 | 8 | 10 | 2 | 10 |
| 44120 | RSEC SM BOWEL W ANASTMOS | 1 | 10 | | 1 | 10 | 10 | 20 | 2 | 10 |
| 44145 | PART COLECTMY W COLOPRCT | 2 | 20 | 5 | 1 | 10 | 10 | 10 | 3 | 10 |
| 44950 | APPENDECTOMY | 1 | 35 | | 1 | 10 | 3 | 10 | 2 | 15 |

Continued --

| CPT CODE | DESCRIPTION | # OF PREOP VISITS | PREOP VISIT #1 DURATION | PREOP VISIT #2 DURATION | RECOV ROOM VISITS | RECOV ROOM DURATION | OTHER HOSPITAL VISITS | HOSPITAL VISIT DURATION | # OF OFFICE VISITS | OFFICE VISIT DURATION |
|---|---|---|---|---|---|---|---|---|---|---|
| 45110 | CMP PROCTECTMY W COLOSTY | 2 | 20 | 5 | 1 | 10 | 11 | 15 | 3 | 10 |
| 47600 | CHOLECYSTECTOMY | 1 | 35 |  | 1 | 10 | 5 | 10 | 3 | 10 |
| 49000 | EXPLORATORY LAPAROTOMY | 2 | 35 | 10 | 1 | 30 | 6 | 15 | 2 | 10 |
| 49505 | RX INGUINAL HERNIA >4YRS | 1 | 35 |  | 1 | 20 | 2 | 15 | 2 | 10 |
| 49560 | VENTRAL HERNIA REPAIR | 1 | 35 |  | 1 | 15 | 2 | 15 | 2 | 10 |
| 50080 | PERQ NEPHROSTOLITHTY 2CM | 2 | 35 | 10 | 1 | 55 | 7 | 20 | 3 | 15 |
| 50230 | NEPHRCTMY+PT URETCT RAD | 2 | 35 | 10 | 1 | 30 | 8 | 20 | 3 | 15 |
| 50360 | RENAL HOMOTRANSPLANTAT'N | 2 | 35 | 15 | 1 | 30 | 13 | 15 | 5 | 15 |
| 50590 | LTHTRPSY EXTCRPAL SH-WVE | 1 | 20 |  | 1 | 55 |  |  | 3 | 10 |
| 51040 | CYSTOT/OSTOMY W DRAINAGE | 2 | 35 | 10 | 1 | 30 | 4 | 20 | 3 | 15 |
| 51840 | ANT VESICOURETHRPXY SIMP | 2 | 35 | 10 | 1 | 50 | 6 | 20 | 3 | 15 |
| 52240 | TUR & LARGE BLAD TUM EXC | 2 | 35 | 10 | 1 | 50 | 3 | 20 | 3 | 15 |
| 52276 | TUR&DIR VISION INT URETH | 1 | 35 |  | 1 | 40 | 1 | 20 | 2 | 10 |
| 52336 | URETROSCP+RMV/MANIP CALC | 2 | 35 | 10 | 1 | 55 | 3 | 25 | 3 | 15 |
| 52500 | TRNSURETHL RSEC BLAD NCK | 2 | 35 | 10 | 1 | 40 | 3 | 20 | 2 | 15 |
| 52601 | TRNSURETHL RSEC PROSTATE | 2 | 35 | 10 | 1 | 40 | 4 | 25 | 3 | 10 |
| 54161 | CIRCUMCISN SRG EXC-EX NB | 1 | 20 |  | 1 | 25 |  |  | 2 | 10 |
| 54405 | INS MULTCOMPNT PENL PROST | 2 | 35 | 10 | 1 | 55 | 3 | 25 | 3 | 15 |
| 54521 | ORCHIECTOMY SIMP-BILAT | 1 | 35 |  | 1 | 40 | 2 | 25 | 2 | 10 |
| 55040 | UNILATERL HYDROCELECTOMY | 1 | 20 |  | 1 | 40 |  |  | 2 | 10 |
| 55821 | PROSTATEC SUPPUBC 1/2STG | 2 | 35 | 10 | 1 | 55 | 9 | 25 | 3 | 10 |
| 55845 | PROSECT RETPUB RAD+LYMAD | 2 | 35 | 10 | 1 | 55 | 9 | 25 | 4 | 15 |
| 57065 | EXTENSIV VAGIN LES DESTR | 1 | 10 |  | 1 | 10 |  |  | 1 | 10 |
| 57260 | COMBINED AP COLPORRHAPHY | 1 | 20 |  | 1 | 10 | 5 | 10 | 2 | 15 |
| 57520 | CERVICAL CONE BIOPSY | 1 | 15 |  | 1 | 10 |  |  | 2 | 15 |
| 57700 | CERCLAGE UTERINE CERVIX | 1 | 10 |  | 1 | 10 |  |  | 6 | 10 |
| 58120 | NONOBSTETRICAL D & C | 1 | 10 |  | 1 | 10 |  |  | 1 | 10 |
| 58150 | TOTAL HYSTERECTOMY | 1 | 20 |  | 1 | 10 | 5 | 10 | 2 | 15 |
| 58210 | HYST RAD WERTHEIM TYPE | 1 | 35 |  | 1 | 30 | 9 | 20 | 3 | 15 |
| 58265 | VAG HYST+A/P REPAIR | 1 | 20 |  | 1 | 10 | 5 | 10 | 3 | 15 |
| 58600 | TUBAL TRANSECT'N/LIGAT'N | 1 | 15 |  | 1 | 10 |  |  | 1 | 15 |
| 58720 | SALPINGO-OOPHORECTOMY | 1 | 20 |  | 1 | 10 | 5 | 10 | 3 | 15 |
| 58740 | LYSIS ADHESIONS OVIDUCT | 1 | 20 |  | 1 | 10 | 3 | 10 | 2 | 15 |
| 58925 | OVARIAN CYSTECTOMY | 1 | 20 |  | 1 | 10 | 5 | 10 | 2 | 15 |
| 58980 | LAPAROSCOPY - PEL VISULZ | 1 | 10 |  | 1 | 10 |  |  | 2 | 10 |
| 59120 | S/O FOR TUBAL PREGNANCY | 1 | 20 |  | 1 | 10 | 4 | 10 | 3 | 15 |
| 59400 | TOTAL OBSTETRIC CARE | 0 | . |  | 1 | 10 | 1 | 10 | 1 | 20 |
| 59510 | LOW CERVICL CS & OB CARE | 0 | . |  | 1 | 10 | 5 | 10 | 2 | 15 |
| 59525 | SUBTOT SEC-HYSTER&OBCARE | 1 | 20 |  | 1 | 10 | 5 | 10 | 2 | 15 |
| 59841 | LEGAL ABORT BY DIL&EVAC | 1 | 10 |  | 1 | 10 |  |  | 1 | 10 |
| 60220 | TOT THYROID LOBECT UNI | 2 | 30 | 15 | 1 | 10 | 3 | 15 | 2 | 10 |
| 61312 | CRANECTMY&EVAC HEMATOMA | 2 | 30 | 15 | 1 | 20 | 9 | 20 | 3 | 15 |
| 61460 | SEC CRANIAL NERVE SBOCIP | 2 | 25 | 15 | 1 | 20 | 5 | 15 | 3 | 15 |
| 61510 | CRANIECT-EXC TUM SUPTENT | 2 | 35 | 15 | 1 | 30 | 10 | 15 | 3 | 15 |

Continued --

| CPT CODE | DESCRIPTION | # OF PREOP VISITS | PREOP VISIT #1 DURATION | PREOP VISIT #2 DURATION | RECOV ROOM VISITS | RECOV ROOM DURATION | OTHER HOSPITAL VISITS | HOSPITAL VISIT DURATION | # OF OFFICE VISITS | OFFICE VISIT DURATION |
|---|---|---|---|---|---|---|---|---|---|---|
| 62223 | CREAT SHUNT VENT-PERITNL | 2 | 20 | 10 | 1 | 20 | 7 | 10 | 2 | 15 |
| 62230 | RPL/RVN SHUNT/VALVE/CATH | 2 | 10 | 10 | 1 | 15 | 3 | 15 | 2 | 15 |
| 63017 | DCOMP SP CORD >2SEG LUMB | 2 | 30 | 15 | 1 | 20 | 6 | 15 | 3 | 15 |
| 63030 | EXC IV DISK LUMBAR UNI | 2 | 30 | 15 | 1 | 15 | 5 | 15 | 3 | 15 |
| 63042 | RE-EXPLOR IV DISK LUMB | 2 | 35 | 15 | 1 | 20 | 5 | 15 | 4 | 15 |
| 64721 | NEUROPLSTY TRNSP MEDIAN | 1 | 10 |  | 1 | 15 |  |  | 2 | 10 |
| 64856 | NEURORRHAPH ARM/LEG+TRNP | 2 | 30 | 15 | 1 | 25 | 1 | 15 | 3 | 10 |
| 65420 | PTERYGIUM TRANSPOSITION | 1 | 5 |  | 1 | 5 |  |  | 3 | 20 |
| 65750 | PENTR KERATPLST APHAKIA | 2 | 30 | 5 | 1 | 5 | 1 | 20 | 6 | 20 |
| 65855 | TRABECULOPLAST-LASER SRG | 1 | 10 |  | 1 | 20 |  |  | 3 | 15 |
| 66170 | TRABECULECTMY AB EXTERNO | 1 | 10 |  | 1 | 10 |  |  | 7 | 15 |
| 66250 | RVN OP WOUND ANT SEGMENT | 1 | 20 |  | 1 | 20 |  |  | 4 | 20 |
| 66625 | IRIDECTOMY PERIPHERAL | 1 | 5 |  | 1 | 10 |  |  | 3 | 20 |
| 66821 | DISCISSION 2ND CAT/LAZER | 1 | 5 |  | 1 | 20 |  |  | 2 | 10 |
| 66984 | EXCAP CATARACT REMOVAL | 1 | 5 |  | 1 | 10 |  |  | 5 | 15 |
| 66985 | INSERT INOCULAR LENS-2ND | 1 | 5 |  | 1 | 10 |  |  | 5 | 15 |
| 67036 | MECHANICAL VITRECTOMY | 2 | 30 | 15 | 1 | 30 | 1 | 30 | 5 | 40 |
| 67107 | RP RETINA W SCLERL BUCKL | 2 | 35 | 15 | 1 | 5 | 1 | 30 | 4 | 30 |
| 67145 | PRHX/RTNA W/O DRN PHTGLT | 1 | 20 |  | 1 | 20 |  |  | 3 | 30 |
| 67228 | DST/EXT RTNP PHOTCGN | 1 | 20 |  | 1 | 15 |  |  | 3 | 30 |
| 67800 | EXC CHALAZION SINGLE | 1 | 20 |  |  |  |  |  | 1 | 5 |
| 67904 | BLEPHAROPT RP LEVATR EXT | 1 | 5 |  | 1 | 10 |  |  | 3 | 10 |
| 67917 | RP ECTROPN BLEPHRPLT EXT | 1 | 5 |  | 1 | 5 |  |  | 3 | 10 |
| 67921 | RP ENTROPION SUTURE | 1 | 5 |  | 1 | 10 |  |  | 4 | 10 |
| 68760 | CLOSE LACRIMAL PUNCTUM | 1 | 20 |  |  |  |  |  | 1 | 5 |
| 69631 | TYMPPLST S MASTECT S OCR | 1 | 20 |  | 1 | 15 |  |  | 4 | 15 |

# APPENDIX K

# COMPARISON OF MULTIPLE SPECIALTY RESPONSES AND POOLED SUMMARY STATISTICS

**Comparison of Multiple Specialty Responses and Pooled Summary Statistics (for codes where survey medians vary by specialty)**

| CPT | Setting | Specialty | Prelim. Value | Mean | Median | N |
|---|---|---|---|---|---|---|
| **Length of Stay** | | | | | | |
| 49505 | In | Gen | 2 | 1 | 1 | 87 |
| | | Urol | | 2 | 2 | 69 |
| | | Pool | | 2 | 2 | 156 |
| 61460 | In | Neur | 2 | 6 | 5 | 57 |
| | | Otol | | 6 | 6 | 4 |
| | | Pool | | 6 | 5 | 61 |
| **Hospital Visits** | | | | | | |
| 21200 | In | Oral | 3 | 4 | 4 | 170 |
| | | Otol | | 6 | 3 | 13 |
| | | Pool | | 4 | 4 | 183 |
| 35081 | In | Thor | 9 | 11 | 10 | 112 |
| | | Vasc | | 12 | 11 | 156 |
| | | Pool | | 12 | 11 | 268 |
| 61460 | In | Neur | 3 | 6 | 6 | 57 |
| | | Otol | | 7 | 7 | 4 |
| | | Pool | | 6 | 6 | 61 |
| **Duration, Recovery Room** | | | | | | |
| 28080 | Out | Orth | 0 | 5 | 5 | 88 |
| | | Pod | | 10 | 10 | 143 |
| | | Pool | | 10 | 10 | 231 |
| 28153 | Out | Orth | 0 | 5 | 5 | 80 |
| | | Pod | | 5 | 0 | 144 |
| | | Pool | | 5 | 5 | 224 |
| 49000 | In | Gen | 30 | 20 | 15 | 89 |
| | | Urol | | 30 | 30 | 56 |
| | | Pool | | 25 | 30 | 145 |
| 49505 | In | Gen | 30 | 15 | 15 | 84 |
| | | Urol | | 25 | 30 | 63 |
| | | Pool | | 20 | 20 | 147 |
| 61460 | In | Neur | 20 | 20 | 20 | 57 |
| | | Otol | | 15 | 15 | 4 |
| | | Pool | | 20 | 20 | 61 |
| **Duration, Hospital Visits except Recovery Room** | | | | | | |
| 49505 | In | Gen | 20 | 15 | 15 | 82 |
| | | Urol | | 15 | 20 | 63 |
| | | Pool | | 15 | 15 | 145 |

Continued --

| CPT | Setting | Specialty | Prelim. Value | Mean | Median | N |
|---|---|---|---|---|---|---|
| **Number of Office Visits** | | | | | | |
| 11042 | Out | Plas | 3 | 5 | 5 | 118 |
| | | Oral | | 3 | 3 | 117 |
| | | Pool | | 4 | 3 | 235 |
| 11642 | Out | Plas | 2 | 4 | 3 | 132 |
| | | Oral | | 3 | 3 | 102 |
| | | Derm | | 3 | 2 | 137 |
| | | Pool | | 3 | 3 | 371 |
| 11750 | Out | Plas | 2 | 3 | 3 | 79 |
| | | Gen | | 3 | 2 | 77 |
| | | Derm | | 3 | 2 | 70 |
| | | Pod | | 4 | 4 | 166 |
| | | Pool | | 3 | 3 | 392 |
| 12052 | Out | Oral | 2 | 3 | 3 | 161 |
| | | Derm | | 3 | 2 | 71 |
| | | Pool | | 3 | 3 | 232 |
| 13132 | Out | Plas | 2 | 4 | 4 | 131 |
| | | Gen | | 3 | 2 | 60 |
| | | Oral | | 4 | 4 | 145 |
| | | Derm | | 3 | 3 | 60 |
| | | Pool | | 4 | 3 | 396 |
| 14040 | Out | Plas | 1 | 4 | 4 | 133 |
| | | Derm | | 3 | 3 | 60 |
| | | Pool | | 4 | 4 | 193 |
| 14060 | Out | Plas | 2 | 4 | 4 | 132 |
| | | Gen | | 4 | 4 | 16 |
| | | Oral | | 4 | 4 | 75 |
| | | Derm | | 3 | 3 | 59 |
| | | Pool | | 4 | 4 | 282 |
| 15100 | In | Gen | 4 | 5 | 4 | 68 |
| | | Derm | | 5 | 5 | 6 |
| | | Pool | | 5 | 4 | 74 |
| 21200 | In | Oral | 4 | 7 | 7 | 171 |
| | | Otol | | 5 | 4 | 13 |
| | | Pool | | 7 | 7 | 184 |
| 21240 | In | Oral | 3 | 7 | 6 | 146 |
| | | Otol | | 5 | 5 | 3 |
| | | Pool | | 7 | 6 | 149 |
| 21320 | Out | Oral | 2 | 4 | 3 | 88 |
| | | Otol | | 2 | 2 | 132 |
| | | Pool | | 3 | 2 | 220 |

**Continued --**

| CPT | Setting | Specialty | Prelim. Value | Mean | Median | N |
|---|---|---|---|---|---|---|
| **Number of Office Visits - Continued** | | | | | | |
| 21470 | In | Oral | 5 | 7 | 6 | 171 |
| | | Otol | | 6 | 5 | 61 |
| | | Pool | | 6 | 5 | 232 |
| 22554 | In | Orth | 2 | 4 | 4 | 18 |
| | | Neur | | 3 | 3 | 110 |
| | | Pool | | 3 | 3 | 128 |
| 27814 | In | Orth | 3 | 4 | 4 | 105 |
| | | Pod | | 6 | 6 | 33 |
| | | Pool | | 5 | 4 | 138 |
| 28080 | Out | Orth | 2 | 3 | 3 | 88 |
| | | Pod | | 5 | 5 | 152 |
| | | Pool | | 4 | 4 | 240 |
| 28153 | Out | Orth | 2 | 3 | 3 | 81 |
| | | Pod | | 5 | 5 | 157 |
| | | Pool | | 5 | 4 | 238 |
| 28292 | Out | Orth | 3 | 4 | 4 | 88 |
| | | Pod | | 7 | 6 | 156 |
| | | Pool | | 6 | 5 | 244 |
| 28308 | Out | Orth | 4 | 4 | 4 | 64 |
| | | Pod | | 7 | 6 | 148 |
| | | Pool | | 6 | 5 | 212 |
| 28810 | In | Orth | 4 | 5 | 4 | 59 |
| | | Vasc | | 4 | 4 | 140 |
| | | Pod | | 7 | 6 | 70 |
| | | Pool | | 5 | 4 | 269 |
| 30520 | Out | Plas | 3 | 4 | 4 | 125 |
| | | Otol | | 4 | 3 | 127 |
| | | Pool | | 4 | 3 | 252 |
| 40500 | Out | Oral | 2 | 4 | 4 | 125 |
| | | Derm | | 3 | 3 | 25 |
| | | Pool | | 4 | 4 | 150 |
| 60220 | In | Gen | 2 | 3 | 2 | 86 |
| | | Otol | | 3 | 3 | 74 |
| | | Pool | | 3 | 2 | 160 |
| 63030 | In | Orth | 3 | 4 | 4 | 61 |
| | | Neur | | 3 | 3 | 118 |
| | | Pool | | 3 | 3 | 179 |
| 64721 | Out | Orth | 2 | 3 | 3 | 100 |
| | | Neur | | 3 | 2 | 111 |
| | | Pool | | 3 | 2 | 211 |

Continued --

| CPT | Setting | Specialty | Prelim. Value | Mean | Median | N |
|---|---|---|---|---|---|---|
| **Number of Office Visits - Continued** | | | | | | |
| 67904 | Out | Plas | 2 | 4 | 4 | 79 |
| | | Opht | | 3 | 3 | 72 |
| | | Pool | | 4 | 3 | 151 |
| **Duration, Office Visits** | | | | | | |
| 21200 | In | Oral | 10 | 15 | 15 | 168 |
| | | Otol | | 10 | 10 | 13 |
| | | Pool | | 13 | 10 | 181 |
| 21240 | In | Oral | 10 | 15 | 15 | 145 |
| | | Otol | | 10 | 10 | 3 |
| | | Pool | | 15 | 15 | 148 |
| 27814 | In | Orth | 10 | 15 | 10 | 106 |
| | | Pod | | 20 | 15 | 33 |
| | | Pool | | 15 | 15 | 139 |
| 28292 | Out | Orth | 10 | 10 | 10 | 89 |
| | | Pod | | 15 | 15 | 155 |
| | | Pool | | 15 | 10 | 244 |
| 28308 | Out | Orth | 10 | 10 | 10 | 64 |
| | | Pod | | 15 | 15 | 146 |
| | | Pool | | 15 | 10 | 210 |
| 28810 | | Orth | 10 | 10 | 10 | 58 |
| | | Vasc | | 10 | 10 | 137 |
| | | Pod | | 15 | 15 | 69 |
| | | Pool | | 10 | 10 | 264 |
| 49000 | | Gen | 10 | 10 | 10 | 90 |
| | | Urol | | 15 | 15 | 56 |
| | | Pool | | 10 | 10 | 146 |

# APPENDIX L

# WORK VALUES BY SPECIALTY

## Work Values by Specialty[1]

| CPT | PPRC SPECIALTY | DESCRIPTION | SET | SCRUB (HSIAO RULE) | TOTAL PRE/ POST | HSIAO INTRA | TOTAL RWV | RATIO OF PREPOST /TOTAL |
|---|---|---|---|---|---|---|---|---|
| 11040 | DERM | DEBRID-PART SKIN THICK | OUT | 12 | 192 | 185 | 389 | 0.4936 |
| 11402 | DERM | EXC BEN LES-TR&EXT-1-2CM | OUT | 0 | 151 | 90 | 241 | 0.6266 |
| 11441 | DERM | EXC BEN LES-OTHR-.5-1CM | OUT | 0 | 151 | 94 | 245 | 0.6163 |
| 11602 | DERM | EXC MAL LES-TR&EXT-1-2CM | OUT | 0 | 151 | 112 | 263 | 0.5741 |
| 11642 | DERM | EXC MAL LES-FACE-1-2CM | OUT | 0 | 192 | 167 | 359 | 0.5348 |
| 11750 | DERM | EXC NAIL&MATRX-PERM RML | OUT | 12 | 192 | 84 | 288 | 0.6667 |
| 12052 | DERM | LY CL-FACE,MM-2.5-5CM | OUT | 12 | 192 | 165 | 369 | 0.5203 |
| 13132 | DERM | COMPX RP-FCE-2.5-7.5CM | OUT | 0 | 192 | 202 | 394 | 0.4873 |
| 13152 | DERM | CMPLX RP-E/E/N-2.5-7.5CM | OUT | 12 | 192 | 331 | 535 | 0.3589 |
| 14040 | DERM | TIS TRNS-FACE- <10SQCM | OUT | 0 | 233 | 397 | 630 | 0.3698 |
| 14060 | DERM | TIS TRNS-E/E/N- <10SQCM | OUT | 0 | 233 | 191 | 424 | 0.5495 |
| 15100 | DERM | SPLT GF-SCLP/TK-<100SQCM | IN | 20 | 617 | 316 | 953 | 0.6474 |
| 15260 | DERM | FTHCK EYE/EAR/NSE-20SQCM | OUT | 12 | 233 | 395 | 640 | 0.3641 |
| 40500 | DERM | LIP SHAVE W MUCOSAL ADVC | OUT | 12 | 252 | 289 | 553 | 0.4557 |
| 67921 | DERM | RP ENTROPION SUTURE | OUT | 12 | 239 | 153 | 404 | 0.5916 |
| | | | | | | | Mean | 0.5238 |
| | | | | | | | Std Dev | 0.0987 |
| 22554 | NEUR | ANT INTBDY ARTH-GFT C3-7 | IN | 20 | 583 | 872 | 1475 | 0.3953 |
| 61312 | NEUR | CRANECTMY&EVAC HEMATOMA | IN | 20 | 818 | 1073 | 1911 | 0.4280 |
| 61460 | NEUR | SEC CRANIAL NERVE SBOCIP | IN | 20 | 565 | 1885 | 2470 | 0.2287 |
| 61510 | NEUR | CRANIECT-EXC TUM SUPTENT | IN | 20 | 828 | 1529 | 2377 | 0.3483 |
| 62223 | NEUR | CREAT SHUNT VENT-PERITNL | IN | 20 | 532 | 650 | 1202 | 0.4426 |
| 62230 | NEUR | RPL/RVN SHUNT/VALVE/CATH | IN | 20 | 373 | 511 | 904 | 0.4126 |
| 63017 | NEUR | DCOMP SP CORD >2SEG LUMB | IN | 20 | 620 | 1075 | 1715 | 0.3615 |
| 63030 | NEUR | EXC IV DISK LUMBAR UNI | IN | 20 | 564 | 576 | 1160 | 0.4862 |
| 63042 | NEUR | RE-EXPLOR IV DISK LUMB | IN | 20 | 632 | 1038 | 1690 | 0.3740 |
| 64721 | NEUR | NEUROPLSTY TRNSP MEDIAN | OUT | 12 | 185 | 164 | 361 | 0.5125 |
| 64856 | NEUR | NEURORRHAPH ARM/LEG+TRNP | IN | 20 | 381 | 793 | 1194 | 0.3191 |
| | | | | | | | Mean | 0.3917 |
| | | | | | | | Std Dev | 0.0756 |

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[1] Work values for scrub and intraservice work are from Phase II of the Hsiao Study.

Continued --

| CPT | PPRC SPECIALTY | DESCRIPTION | SET | SCRUB (HSIAO RULE) | TOTAL PRE/ POST | HSIAO INTRA | TOTAL RWV | RATIO OF PREPOST /TOTAL |
|---|---|---|---|---|---|---|---|---|
| 57065 | OBST | EXTENSIV VAGIN LES DESTR | OUT | 12 | 131 | 74 | 217 | 0.6037 |
| 57260 | OBST | COMBINED AP COLPORRHAPHY | IN | 20 | 397 | 266 | 683 | 0.5813 |
| 57520 | OBST | CERVICAL CONE BIOPSY | OUT | 12 | 201 | 129 | 342 | 0.5877 |
| 57700 | OBST | CERCLAGE UTERINE CERVIX | OUT | 12 | 336 | 124 | 472 | 0.7119 |
| 58120 | OBST | NONOBSTETRICAL D & C | OUT | 12 | 131 | 78 | 221 | 0.5928 |
| 58150 | OBST | TOTAL HYSTERECTOMY | IN | 20 | 397 | 407 | 824 | 0.4818 |
| 58210 | OBST | HYST RAD WERTHEIM TYPE | IN | 20 | 801 | 727 | 1548 | 0.5174 |
| 58265 | OBST | VAG HYST+A/P REPAIR | IN | 20 | 446 | 423 | 889 | 0.5017 |
| 58600 | OBST | TUBAL TRANSECT'N/LIGAT'N | OUT | 12 | 152 | 182 | 346 | 0.4393 |
| 58720 | OBST | SALPINGO-OOPHORECTOMY | IN | 20 | 446 | 282 | 748 | 0.5963 |
| 58740 | OBST | LYSIS ADHESIONS OVIDUCT | IN | 20 | 323 | 196 | 539 | 0.5993 |
| 58925 | OBST | OVARIAN CYSTECTOMY | IN | 20 | 397 | 238 | 655 | 0.6061 |
| 58980 | OBST | LAPAROSCOPY - PEL VISULZ | OUT | 12 | 172 | 235 | 419 | 0.4105 |
| 59120 | OBST | S/O FOR TUBAL PREGNANCY | IN | 20 | 409 | 299 | 728 | 0.5618 |
| 59400 | OBST | TOTAL OBSTETRIC CARE | IN | 20 | 137 | 195 | 352 | 0.3892 |
| 59510 | OBST | LOW CERVICL CS & OB CARE | IN | 20 | 328 | 285 | 633 | 0.5182 |
| 59525 | OBST | SUBTOT SEC-HYSTER&OBCARE | IN | 20 | 397 | 427 | 844 | 0.4704 |
| 59841 | OBST | LEGAL ABORT BY DIL&EVAC | OUT | 12 | 131 | 125 | 268 | 0.4888 |
| | | | | | | | Mean | 0.5366 |
| | | | | | | | Std Dev | 0.0798 |
| 65420 | OPHT | PTERYGIUM TRANSPOSITION | OUT | 12 | 225 | 121 | 358 | 0.6285 |
| 65750 | OPHT | PENTR KERATPLST APHAKIA | IN | 20 | 528 | 770 | 1318 | 0.4006 |
| 65855 | OPHT | TRABECULOPLAST-LASER SRG | OUT | 12 | 261 | 226 | 499 | 0.5230 |
| 66170 | OPHT | TRABECULECTMY AB EXTERNO | OUT | 12 | 433 | 466 | 911 | 0.4753 |
| 66250 | OPHT | RVN OP WOUND ANT SEGMENT | OUT | 12 | 358 | 298 | 668 | 0.5359 |
| 66625 | OPHT | IRIDECTOMY PERIPHERAL | OUT | 12 | 240 | 280 | 532 | 0.4511 |
| 66821 | OPHT | DISCISSION 2ND CAT/LAZER | OUT | 12 | 181 | 124 | 317 | 0.5710 |
| 66984 | OPHT | EXCAP CATARACT REMOVAL | OUT | 12 | 320 | 641 | 973 | 0.3289 |
| 66985 | OPHT | INSERT INOCULAR LENS-2ND | OUT | 12 | 320 | 437 | 769 | 0.4161 |
| 67036 | OPHT | MECHANICAL VITRECTOMY | IN | 20 | 656 | 665 | 1341 | 0.4892 |
| 67107 | OPHT | RP RETINA W SCLERL BUCKL | IN | 20 | 495 | 898 | 1413 | 0.3503 |
| 67228 | OPHT | DST/EXT RTNP PHOTCGN | OUT | 12 | 322 | 388 | 722 | 0.4460 |
| 67800 | OPHT | EXC CHALAZION SINGLE | OUT | 12 | 100 | 72 | 184 | 0.5435 |
| 67904 | OPHT | BLEPHAROPT RP LEVATR EXT | OUT | 12 | 198 | 358 | 568 | 0.3486 |
| 67917 | OPHT | RP ECTROPN BLEPHRPLT EXT | OUT | 12 | 183 | 339 | 534 | 0.3427 |
| 68760 | OPHT | CLOSE LACRIMAL PUNCTUM | OUT | 12 | 100 | 50 | 162 | 0.6173 |
| | | | | | | | Mean | 0.4668 |
| | | | | | | | Std Dev | 0.0947 |

Continued --

| CPT | PPRC SPECIALTY | DESCRIPTION | SET | SCRUB (HSIAO RULE) | TOTAL PRE/ POST | HSIAO INTRA | TOTAL RWV | | RATIO OF PREPOST /TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| 11042 | ORAL | DEBRID-SKIN&SUBQ TIS | OUT | 12 | 192 | 110 | 314 | | 0.6115 |
| 11100 | ORAL | SKIN/SUBQ BIOPSY-1 LES'N | OUT | 12 | 151 | 49 | 212 | | 0.7123 |
| 11441 | ORAL | EXC BEN LES-OTHR-.5-1CM | OUT | 0 | 151 | 94 | 245 | | 0.6163 |
| 11642 | ORAL | EXC MAL LES-FACE-1-2CM | OUT | 0 | 192 | 167 | 359 | | 0.5348 |
| 12052 | ORAL | LY CL-FACE,MM-2.5-5CM | OUT | 12 | 192 | 165 | 369 | | 0.5203 |
| 13132 | ORAL | COMPX RP-FCE-2.5-7.5CM | OUT | 0 | 192 | 202 | 394 | | 0.4873 |
| 14060 | ORAL | TIS TRNS-E/E/N- <10SQCM | OUT | 0 | 233 | 191 | 424 | | 0.5495 |
| 20680 | ORAL | DEEP IMPLANT REMOVAL | IN | 20 | 253 | 147 | 420 | | 0.6024 |
| 21200 | ORAL | TOTAL MANDIB OSTEOPLASTY | IN | 20 | 580 | 975 | 1575 | | 0.3683 |
| 21240 | ORAL | TM ARTHROPLASTY | IN | 20 | 577 | 875 | 1472 | | 0.3920 |
| 21320 | ORAL | NASAL FX MANIP & STABILI | OUT | 0 | 230 | 131 | 361 | | 0.6371 |
| 21455 | ORAL | INTERDENT FIX-MANDIBL FX | IN | 20 | 432 | 387 | 839 | | 0.5149 |
| 21470 | ORAL | O RX COMP MANDBL FX-MULT | IN | 20 | 504 | 792 | 1316 | | 0.3830 |
| 40500 | ORAL | LIP SHAVE W MUCOSAL ADVC | OUT | 12 | 252 | 289 | 553 | | 0.4557 |
| | | | | | | | | Mean | 0.5275 |
| | | | | | | | | Std Dev | 0.0996 |
| 22554 | ORTH | ANT INTBDY ARTH-GFT C3-7 | IN | 20 | 583 | 872 | 1475 | | 0.3953 |
| 23420 | ORTH | RP COMP SH CUF AVULS-CHR | IN | 20 | 495 | 727 | 1242 | | 0.3986 |
| 25605 | ORTH | RX C RD FX/EPH SEP W MNP | OUT | 12 | 332 | 187 | 531 | | 0.6252 |
| 25611 | ORTH | RX C CMPLX RD FX-FIX/PIN | IN | 20 | 450 | 332 | 802 | | 0.5611 |
| 26055 | ORTH | TEN SHETH INC TRIG FING | OUT | 12 | 209 | 88 | 309 | | 0.6764 |
| 26160 | ORTH | EXC LES TEN SHTH/CAP-HND | OUT | 12 | 181 | 145 | 338 | | 0.5355 |
| 26951 | ORTH | FNG/THMB AMP-ANY-DIR CL | IN | 20 | 409 | 254 | 683 | | 0.5988 |
| 27130 | ORTH | ARTHPLY-TOT HIP RPLC-SMP | IN | 20 | 773 | 1188 | 1981 | | 0.3902 |
| 27244 | ORTH | O RX ITRC/PRTRC FX-FIX | IN | 20 | 773 | 678 | 1471 | | 0.5255 |
| 27814 | ORTH | OPEN RX BIMALLEOLAR FX | IN | 20 | 542 | 505 | 1067 | | 0.5080 |
| 27880 | ORTH | AMP LEG,THROUGH TIBIA AND FIBULA | IN | 20 | 781 | 442 | 1243 | | 0.6283 |
| 28080 | ORTH | EXC INTERDIGITAL NEUROMA | OUT | 12 | 278 | 114 | 404 | | 0.6881 |
| 28124 | ORTH | PARTIAL EXC PHALANX TOE | OUT | 12 | 250 | 135 | 397 | | 0.6297 |
| 28153 | ORTH | RSEC HEAD OF PHLNX-FOOT | OUT | 12 | 263 | 124 | 399 | | 0.6591 |
| 28292 | ORTH | HALX VALGS CORR-MAYO TYPE | OUT | 12 | 319 | 292 | 623 | | 0.5120 |
| 28810 | ORTH | AMP, METATARSAL,TOE,SINGLE | IN | 20 | 600 | 184 | 804 | | 0.7463 |
| 29881 | ORTH | ARTHSCP MED?LAT MNSTMY K | OUT | 12 | 291 | 467 | 770 | | 0.3779 |
| 63030 | ORTH | EXC IV DISK LUMBAR UNI | IN | 20 | 564 | 576 | 1160 | | 0.4862 |
| 64721 | ORTH | NEUROPLSTY TRNSP MEDIAN | OUT | 12 | 185 | 164 | 361 | | 0.5125 |
| | | | | | | | | Mean | 0.5502 |
| | | | | | | | | Std Dev | 0.1070 |

Continued --

| CPT | PPRC SPECIALTY | DESCRIPTION | SET | SCRUB (HSIAO RULE) | TOTAL PRE/ POST | HSIAO INTRA | TOTAL RWV | RATIO OF PREPOST /TOTAL |
|---|---|---|---|---|---|---|---|---|
| 21200 | OTOL | TOTAL MANDIB OSTEOPLASTY | IN | 20 | 580 | 975 | 1575 | 0.3683 |
| 21240 | OTOL | TM ARTHROPLASTY | IN | 20 | 577 | 875 | 1472 | 0.3920 |
| 21320 | OTOL | NASAL FX MANIP & STABILI | OUT | 0 | 230 | 131 | 361 | 0.6371 |
| 21365 | OTOL | OPEN RX COMPLEX MALAR FX | IN | 20 | 461 | 753 | 1234 | 0.3736 |
| 21455 | OTOL | INTERDENT FIX-MANDIBL FX | IN | 20 | 432 | 387 | 839 | 0.5149 |
| 21470 | OTOL | O RX COMP MANDBL FX-MULT | IN | 20 | 504 | 792 | 1316 | 0.3830 |
| 30520 | OTOL | NASAL SEPTOPLASTY OR SMR | OUT | 12 | 239 | 324 | 575 | 0.4157 |
| 31365 | OTOL | TOT LARYNGECT&RADCL NECK | IN | 20 | 1182 | 1391 | 2593 | 0.4558 |
| 31600 | OTOL | TRACHEOSTOMY, PLAN(SEP PROC); | IN | 20 | 967 | 207 | 1194 | 0.8099 |
| 38720 | OTOL | CERVICAL LYMPHADNCTY-UNI | IN | 20 | 665 | 584 | 1269 | 0.5240 |
| 42415 | OTOL | EXC PAROTD LAT-DSEC NERV | IN | 20 | 371 | 933 | 1324 | 0.2802 |
| 42820 | OTOL | T&A < AGE 12 | IN | 20 | 203 | 148 | 371 | 0.5472 |
| 60220 | OTOL | TOT THYROID LOBECT UNI | IN | 20 | 396 | 571 | 987 | 0.4012 |
| 61460 | OTOL | SEC CRANIAL NERVE SBOCIP | IN | 20 | 565 | 1885 | 2470 | 0.2287 |
| 69631 | OTOL | TYMPPLST S MASTECT S OCR | OUT | 12 | 323 | 643 | 978 | 0.3303 |
|  |  |  |  |  |  |  | Mean | 0.4441 |
|  |  |  |  |  |  |  | Std Dev | 0.1412 |
| 10061 | PLAS | I&D SKIN ABSCESS-COMPLIC | OUT | 12 | 192 | 132 | 336 | 0.5714 |
| 11042 | PLAS | DEBRID-SKIN&SUBQ TIS | OUT | 12 | 192 | 110 | 314 | 0.6115 |
| 11100 | PLAS | SKIN/SUBQ BIOPSY-1 LES'N | OUT | 12 | 151 | 49 | 212 | 0.7123 |
| 11402 | PLAS | EXC BEN LES-TR&EXT-1-2CM | OUT | 0 | 151 | 90 | 241 | 0.6266 |
| 11642 | PLAS | EXC MAL LES-FACE-1-2CM | OUT | 0 | 192 | 167 | 359 | 0.5348 |
| 11701 | PLAS | MAN DEBRID NAILS-+5/LESS | OUT | 12 | 151 | 44 | 207 | 0.7295 |
| 11750 | PLAS | EXC NAIL&MATRX-PERM RML | OUT | 12 | 192 | 84 | 288 | 0.6667 |
| 13132 | PLAS | COMPX RP-FCE-2.5-7.5CM | OUT | 0 | 192 | 202 | 394 | 0.4873 |
| 14040 | PLAS | TIS TRNS-FACE- <10SQCM | OUT | 0 | 233 | 397 | 630 | 0.3698 |
| 14060 | PLAS | TIS TRNS-E/E/N- <10SQCM | OUT | 0 | 233 | 191 | 424 | 0.5495 |
| 17001 | PLAS | DESTRCTN FACE LES-2&3 | OUT | 12 | 131 | 5 | 148 | 0.8851 |
| 29125 | PLAS | APP SHORT ARM SPLINT | OUT | 12 | 192 | 37 | 241 | 0.7967 |
| 30520 | PLAS | NASAL SEPTOPLASTY OR SMR | OUT | 12 | 239 | 324 | 575 | 0.4157 |
| 38720 | PLAS | CERVICAL LYMPHADNCTY-UNI | IN | 20 | 665 | 584 | 1269 | 0.5240 |
| 42415 | PLAS | EXC PAROTD LAT-DSEC NERV | IN | 20 | 371 | 933 | 1324 | 0.2802 |
| 67904 | PLAS | BLEPHAROPT RP LEVATR EXT | OUT | 12 | 198 | 358 | 568 | 0.3486 |
| 21200 | PLAS | TOTAL MANDIB OSTEOPLASTY | IN | 20 | 580 | 975 | 1575 | 0.3683 |
|  |  |  |  |  |  |  | Mean | 0.5575 |
|  |  |  |  |  |  |  | Std Dev | 0.1638 |

**Continued --**

| CPT | PPRC SPECIALTY | DESCRIPTION | SET | SCRUB (HSIAO RULE) | TOTAL PRE/ POST | HSIAO INTRA | TOTAL RWV | RATIO OF PREPOST /TOTAL |
|---|---|---|---|---|---|---|---|---|
| 27786 | POD | RX C DISTAL FIB FX | OUT | 12 | 314 | 126 | 452 | 0.6947 |
| 28108 | POD | LES EXC-PHLAN-FOOT | OUT | 12 | 274 | 169 | 455 | 0.6022 |
| 28126 | POD | CONDYLECTOMY-PHLANGE-TOE | OUT | 12 | 233 | 127 | 372 | 0.6263 |
| 28160 | POD | HEMIPHLNGCTMY/IP EXC-FT | OUT | 12 | 233 | 135 | 380 | 0.6132 |
| 28285 | POD | HAMMERTOE OP-1 TOE | OUT | 12 | 274 | 118 | 404 | 0.6782 |
| 28470 | POD | RX CLSD METATARSAL FX | OUT | 0 | 233 | 61 | 294 | 0.7925 |
| 11750 | POD | EXC NAIL&MATRX-PERM RML | OUT | 12 | 192 | 84 | 288 | 0.6667 |
| 27814 | POD | OPEN RX BIMALLEOLAR FX | IN | 20 | 542 | 505 | 1067 | 0.5080 |
| 28080 | POD | EXC INTERDIGITAL NEUROMA | OUT | 12 | 278 | 114 | 404 | 0.6881 |
| 28153 | POD | RSEC HEAD OF PHLNX-FOOT | OUT | 12 | 263 | 124 | 399 | 0.6591 |
| 28292 | POD | HALX VALGS CORR-MAYO TYPE | OUT | 12 | 319 | 292 | 623 | 0.5120 |
| 28810 | POD | AMP, METATARSAL,TOE,SINGLE | IN | 20 | 600 | 184 | 804 | 0.7463 |
| | | | | | | | Mean | 0.6489 |
| | | | | | | | Std Dev | 0.0804 |
| 10061 | SURG | I&D SKIN ABSCESS-COMPLIC | OUT | 12 | 192 | 132 | 336 | 0.5714 |
| 11441 | SURG | EXC BEN LES-OTHR-.5-1CM | OUT | 0 | 151 | 94 | 245 | 0.6163 |
| 11750 | SURG | EXC NAIL&MATRX-PERM RML | OUT | 12 | 192 | 84 | 288 | 0.6667 |
| 13132 | SURG | COMPX RP-FCE-2.5-7.5CM | OUT | 0 | 192 | 202 | 394 | 0.4873 |
| 14060 | SURG | TIS TRNS-E/E/N- <10SQCM | OUT | 0 | 233 | 191 | 424 | 0.5495 |
| 15100 | SURG | SPLT GF-SCLP/TK-<100SQCM | IN | 20 | 617 | 316 | 953 | 0.6474 |
| 19120 | SURG | BREAST LESION EXCISION | OUT | 12 | 167 | 161 | 340 | 0.4912 |
| 19240 | SURG | MODIFIED RADICAL MASTECT | IN | 20 | 454 | 631 | 1105 | 0.4109 |
| 31600 | SURG | TRACHEOSTOMY, PLAN(SEP PROC); | IN | 20 | 967 | 207 | 1194 | 0.8099 |
| 36800 | SURG | INS CANN HEMODIA,OTHER PURPOSE;V T | IN | 20 | 351 | 139 | 510 | 0.6882 |
| 38100 | SURG | SPLENECTOMY TOTAL | IN | 20 | 483 | 628 | 1131 | 0.4271 |
| 38510 | SURG | BIOP/EXC LYM NODE(S);DEEP CERV NOD | OUT | 12 | 196 | 164 | 372 | 0.5269 |
| 42415 | SURG | EXC PAROTD LAT-OSEC NERV | IN | 20 | 371 | 933 | 1324 | 0.2802 |
| 43630 | SURG | HEMIGASTRCTMY S VAGOTOMY | IN | 20 | 561 | 834 | 1415 | 0.3965 |
| 43830 | SURG | TEMPORARY GASTROSTOMY | IN | 20 | 486 | 297 | 803 | 0.6052 |
| 44005 | SURG | ENTEROLYSIS | IN | 20 | 520 | 529 | 1069 | 0.4864 |
| 44120 | SURG | RSEC SM BOWEL W ANASTMOS | IN | 20 | 692 | 594 | 1306 | 0.5299 |
| 44145 | SURG | PART COLECTMY W COLOPRCT | IN | 20 | 634 | 979 | 1633 | 0.3882 |
| 44950 | SURG | APPENDECTOMY | IN | 20 | 351 | 272 | 643 | 0.5459 |
| 45110 | SURG | CMP PROCTECTMY W COLOSTY | IN | 20 | 759 | 1163 | 1942 | 0.3908 |
| 47600 | SURG | CHOLECYSTECTOMY | IN | 20 | 450 | 486 | 956 | 0.4707 |
| 49000 | SURG | EXPLORATORY LAPAROTOMY | IN | 20 | 575 | 490 | 1085 | 0.5300 |
| 49505 | SURG | RX INGUINAL HERNIA >4YRS | IN | 20 | 338 | 237 | 595 | 0.5681 |
| 49560 | SURG | VENTRAL HERNIA REPAIR | IN | 20 | 327 | 350 | 697 | 0.4692 |
| 60220 | SURG | TOT THYROID LOBECT UNI | IN | 20 | 396 | 571 | 987 | 0.4012 |
| | | | | | | | Mean | 0.5182 |
| | | | | | | | Std Dev | 0.1136 |

Continued --

| CPT | PPRC SPECIALTY | DESCRIPTION | SET | SCRUB (HSIAO RULE) | TOTAL PRE/ POST | HSIAO INTRA | TOTAL RWV | RATIO OF PREPOST /TOTAL |
|---|---|---|---|---|---|---|---|---|
| 32480 | THOR | LOBECTOMY, TOTAL OR SEG; | IN | 20 | 742 | 944 | 1706 | 0.4349 |
| 32500 | THOR | WEDGE RESEC OF LUNG, 1 OR MULTIPLE | IN | 20 | 536 | 612 | 1168 | 0.4589 |
| 33207 | THOR | IN PERM PACEMAK TRANSVEN ELEC;VENT | IN | 20 | 337 | 296 | 653 | 0.5161 |
| 33212 | THOR | IN/REPL PACE PULSE GEN/AICD PULS G | IN | 20 | 202 | 142 | 364 | 0.5549 |
| 33405 | THOR | REPL,AORTIC VALVE,W/CARDIOPULM BYP | IN | 20 | 852 | 1436 | 2308 | 0.3692 |
| 33512 | THOR | CABGX3 | IN | 20 | 717 | 1438 | 2175 | 0.3297 |
| 35081 | THOR | DIR REP ANEUR/EXCIS(PART/TOT),GRAF | IN | 20 | 976 | 1219 | 2215 | 0.4406 |
| 37620 | THOR | INT,PRT/COMP,IN V CAVA,SUT,LIG,PLI | IN | 20 | 703 | 518 | 1241 | 0.5665 |
| 39400 | THOR | MEDIASTINOSCOPY ,W(O)BIOPSY | IN | 20 | 247 | 288 | 555 | 0.4450 |
|  |  |  |  |  |  |  | Mean | 0.4573 |
|  |  |  |  |  |  |  | Std Dev | 0.0745 |
| 49000 | UROL | EXPLORATORY LAPAROTOMY | IN | 20 | 575 | 490 | 1085 | 0.5300 |
| 49505 | UROL | RX INGUINAL HERNIA >4YRS | IN | 20 | 338 | 237 | 595 | 0.5681 |
| 50080 | UROL | PERQ NEPHROSTOLITHTY 2CM | IN | 20 | 773 | 878 | 1671 | 0.4626 |
| 50230 | UROL | NEPHRCTMY+PT URETCT RAD | IN | 20 | 786 | 1366 | 2172 | 0.3619 |
| 50360 | UROL | RENAL HOMOTRANSPLANTAT'N | IN | 20 | 1061 | 1003 | 2084 | 0.5091 |
| 50590 | UROL | LTHTRPSY EXTCRPAL SH-WVE | OUT | 12 | 320 | 685 | 1017 | 0.3147 |
| 51040 | UROL | CYSTOT/OSTOMY W DRAINAGE | IN | 20 | 578 | 195 | 793 | 0.7289 |
| 51840 | UROL | ANT VESICOURETHRPXY SIMP | IN | 20 | 714 | 572 | 1306 | 0.5467 |
| 52240 | UROL | TUR & LARGE BLAD TUM EXC | IN | 20 | 558 | 636 | 1214 | 0.4596 |
| 52276 | UROL | TUR&DIR VISION INT URETH | IN | 20 | 337 | 279 | 636 | 0.5299 |
| 52336 | UROL | URETROSCP+RMV/MANIP CALC | IN | 20 | 583 | 628 | 1231 | 0.4736 |
| 52500 | UROL | TRNSURETHL RSEC BLAD NCK | IN | 20 | 494 | 456 | 970 | 0.5093 |
| 52601 | UROL | TRNSURETHL RSEC PROSTATE | IN | 20 | 595 | 691 | 1306 | 0.4556 |
| 54161 | UROL | CIRCUMCISN SRG EXC-EX NB | OUT | 12 | 230 | 218 | 460 | 0.5000 |
| 54405 | UROL | INS MULTCOMPNT PENL PROST | IN | 20 | 583 | 836 | 1439 | 0.4051 |
| 55040 | UROL | UNILATERL HYDROCELECTOMY | OUT | 12 | 257 | 279 | 548 | 0.4690 |
| 55821 | UROL | PROSTATEC SUPPUBC 1/2STG | IN | 20 | 907 | 761 | 1688 | 0.5373 |
| 55845 | UROL | PROSECT RETPUB RAD+LYMAD | IN | 20 | 980 | 1478 | 2478 | 0.3955 |
|  |  |  |  |  |  |  | Mean | 0.4865 |
|  |  |  |  |  |  |  | Std Dev | 0.0880 |
| 27880 | VASC | AMP LEG,THROUGH TIBIA AND FIBULA; | IN | 20 | 781 | 442 | 1243 | 0.6283 |
| 28810 | VASC | AMP, METATARSAL,TOE,SINGLE | IN | 20 | 600 | 184 | 804 | 0.7463 |
| 34201 | VASC | EMBOLEC/THROMBEC,W(O)CAT;FEMRO,AOR | IN | 20 | 711 | 499 | 1230 | 0.5780 |
| 35081 | VASC | DIR REP ANEUR/EXCIS(PART/TOT),GRAF | IN | 20 | 976 | 1219 | 2215 | 0.4406 |
| 35301 | VASC | THRMBONDRCTMY-CAROTD ETC | IN | 20 | 603 | 850 | 1473 | 0.4094 |
| 35556 | VASC | BYPASS GRAFT,W/VEIN;FEMORAL-POPLIT | IN | 20 | 756 | 983 | 1759 | 0.4298 |
| 35566 | VASC | BP GRAFT,V;FEM-ANT,POST TIB,PERON | IN | 20 | 857 | 901 | 1778 | 0.4820 |
| 35646 | VASC | BYPASS GRAFT,NOT VEIN;AORTOFEM/BIF | IN | 20 | 826 | 890 | 1736 | 0.4758 |
| 36800 | VASC | INS CANN HEMODIA,OTHER PURPOSE;V T | IN | 20 | 351 | 139 | 510 | 0.6882 |
| 36830 | VASC | CREAT ARTVEN FIST;NONAUTOGEN GRAFT | IN | 20 | 351 | 472 | 843 | 0.4164 |
| 37620 | VASC | INT,PRT/COMP,IN V CAVA,SUT,LIG,PLI | IN | 20 | 703 | 518 | 1241 | 0.5665 |
|  |  |  |  |  |  |  | Mean | 0.5328 |
|  |  |  |  |  |  |  | Std Dev | 0.1111 |

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